5504

Walk Around

F4F Wildcat

Walk Around Number 4

squadron/signal publications

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By Richard Dann
Color by Don Greer & Michael Bobe
Illustrated by Joe Sewell

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Introduction

Finding a Grumman F4F Wildcat of Eastern FM-1/2 has been quite a chore. Initially, I started at the National Museum of Naval Aviation, which owns both a F4F-3 and a FM-2. Cinema Air of Carslbad, California also had a FM-2. Finally, the El Toro Marine Corps Air Station Museum offered their F4F-3 for photographic inspection. Original Grumman Walk Around photographs were another valuable source of Black and White photographs for this book.

The Grumman Wildcat became the mainstay of Naval fighter aviation during the first two years of American involvement in the Second World War. 7,825 were built, 1,988 by Grumman and another 5,837 by the Eastern Aircraft division of General Motors. Like all Grumman aircraft, the Wildcat was tough and dependable, staying in production until August of 1945, long after more advanced fighter designs had become available.

Following the standard of previous Grumman designs, such as the F2F and F3F, the Wildcat was a natural outgrowth of the Grumman fighter family. Retaining the patented landing gear retraction system of previous Grumman aircraft, the F4F was initially destined to be developed only as a back-up for the Brewster F2A Buffalo, should that design prove to be unsuccessful. Fortunately for Grumman, the Wildcat's performance outshined the Brewster aircraft, and the Wildcat became the only U.S. Navy fighter aircraft capable of taking on the A6M during the early days of the Second World War.

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A F4F-3 of Fighting Seventy-Two (VF-72) assigned to USS WASP (CV-7). The aircraft carries Black tail surfaces, Lemon Yellow section markings and a Neutrality Patrol Star on the nose. The F4F-3 had a non-folding wing and straight pitot tube. (Roger Seybel)

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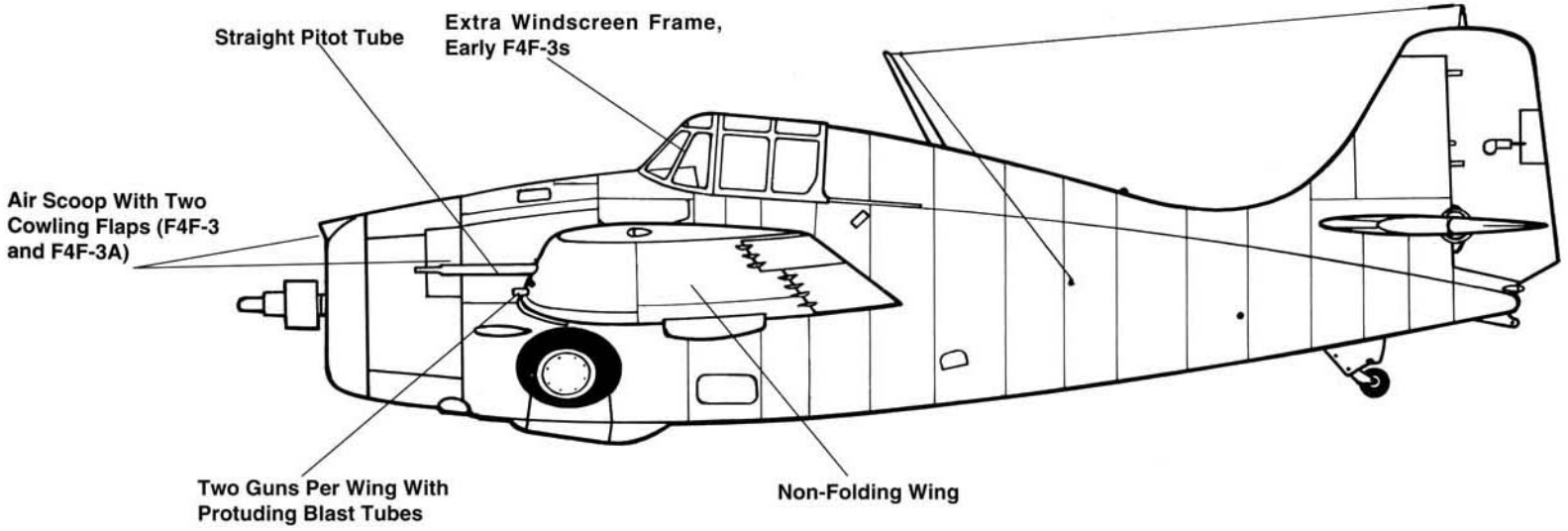
Editor's Note: Many of the color photographs used in this book are of restored F4Fs. A number of F4Fs have recently been recovered from Lake Michigan and at least five of these have been restored. We have tried to identify any changes made by the various restoration teams on any particular aircraft that made it differ from its original configuration, i.e. the use of a Hamilton Standard propeller instead of a Curtiss Electric on the F4F-3 owned by Mr Dick Hansen and Mr Jim Porter.

Overleaf: A F4F-3 of Marine Fighter Squadron 121 (VMF-121). The aircraft carries the full squadron, type, and aircraft number (121-F-17) on the fuselage in White. This is a late production F4F-3. (Arnold via Northrop/Grumman)

A F4F-3 assigned to the sixth section of Marine Fighter Squadron 121 (VMF-121). This aircraft is fitted with an inflatable tailwheel, indicating that it was shore based. During carrier duty, the inflatable tire was replaced with a solid rubber wheel. (Grumman)

Identification Features F4F-3

Note: F4F-3s used a variety of cowling arrangements depending on the type of engine being used.


Straight Pitot Tube
Extra Windscreen Frame, Early F4F-3s
Air Scoop With Two Cowling Flaps (F4F-3 and F4F-3A)
Two Guns Per Wing With Protuding Blast Tubes
Non-Folding Wing

In recent years a number of F4F Wildcats have been recovered from the bottom of Lake Michigan. These aircraft ended up in the lake due to accidents while conducting training with the USS WOLVERINE and USS SABLE, converted sidewheeler steamers used as training carriers on the lake. The following F4F-3 Wildcats have been recovered:

BuNo	Location & Status
12260	Restored by Mr. Jim Porter and Mr. Dick Hansen - Flyable.
12296	Mr. Dave Kensler, Pontiac, Michigan, undergong restoration.
12297	Cradle of Aviation Museum, undergoing restoration.
12320	MCAS El Toro, California, on static display.
3872	National Museum of Naval Aviation, on static display
4039	National Museum of Naval Aviation, on static display
3969	San Diego Aerospace Museum, undergoing restoration.

(Left) This F4F-3 (BuNo 3872) was another of the Lake Michigan Wildcats and was restored by the National Museum of Naval Aviation at Pensacola ,Florida. The aircraft went on public display during 1993 painted in the colors of VF-7 aboard USS WASP (CV-7). It is the earliest example of the Wildcat in existance today. (National Museum of Naval Aviation)

A Marine Corps F4F-3 runs up its engine while chocked down on the ramp during early 1941. The ground crewman is hanging on the straight pitot tube, one of the identification features of the F4F-3. This is a late production F4F-3 with eight cowl flaps and no carburetor air intake on the cowling ring. The aircraft is painted in the overall Light Gray camouflage in use at this time. (National Air and Space Museum via Jim Sullivan)

This F4F-3 Wildcat (BuNo 3872), restored and owned by the National Museum of Naval Aviation at Pensacola, Florida, is the finest example of a Grumman-built Wildcat in the country today. The aircraft was one of the Lake Michigan Wildcats and is the only one to have a early style cowling (two cowl scoops and a carburetor air scoop). The aircraft is painted in pre-war colors and markings representing Fighting Seven (VF-7) aboard USS RANGER (CV-7). According to its BuNo, this F4F-3 should not have a carburetor air scoop on the cowl ring. (National Museum of Naval Aviation & Sam Davis)

A pair of overall Yellow F4F-3 Wildcats. The aircraft in the foreground (BuNo 1845) was the second aircraft off the production line (P&W R-1830-76 engine) and has a carburetor air scoop and two cowl flaps along with provision for a cowling mounted .50 caliber machine gun forward of the cockpit. The aircraft in the background is a late production F4F-3 (P&W R-1830-86 engine) with eight cowl flaps and no cowling carburetor air scoop. (San Diego Aerospace Museum)

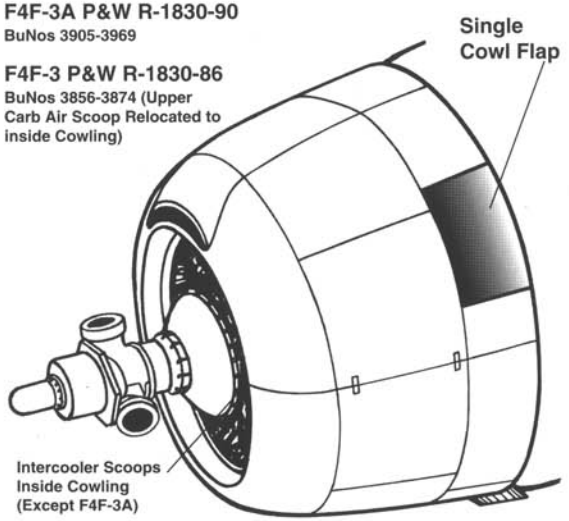
One of the main differences between the F4F-3 and later variants of the Wildcat was the wing. The F4F-3 had a non-folding wing with two .50 caliber machine guns per wing, a straight pitot tube and the inboard gun was fitted with a blast tube that protruded forward of the wing. (San Diego Aerospace Museum)

F4F Cowling Configurations

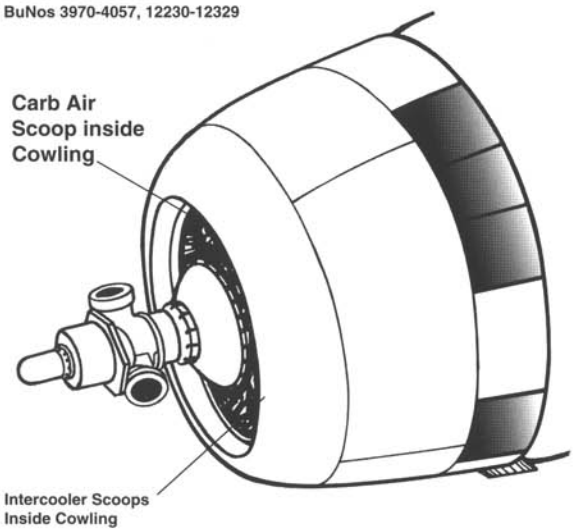
F4F-3 (Early) P&W R-1830-76
BuNos 1848-1896, 2512-2538

F4F-3A P&W R-1830-90
BuNos 3905-3969

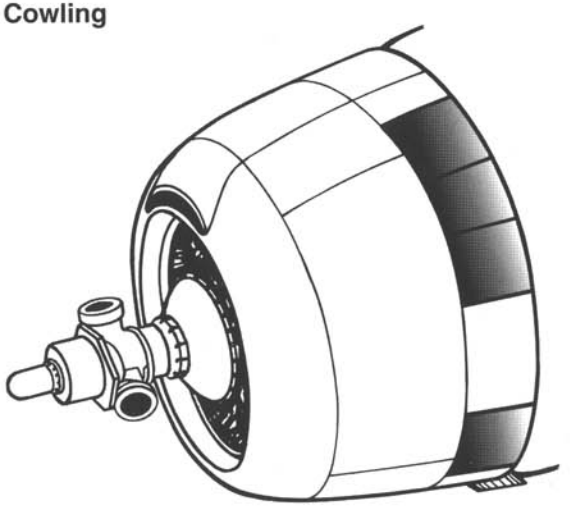
F4F-3 P&W R-1830-86
BuNos 3856-3874 (Upper Carb Air Scoop Relocated to inside Cowling)



F4F-3 (Late)
P&W R-1830-86
BuNos 3970-4057, 12230-12329

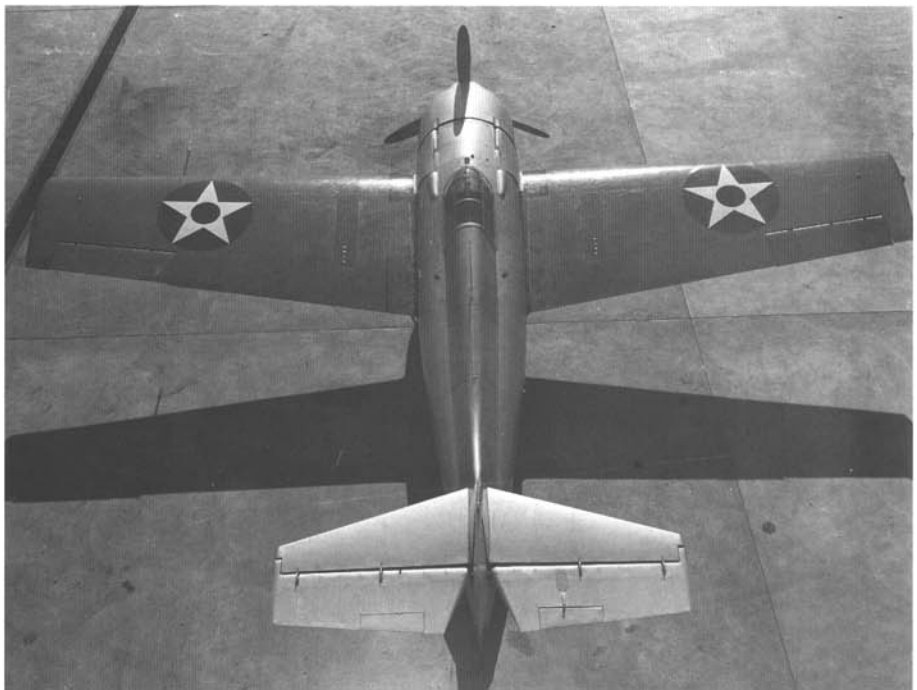


F4F-4 Standard Cowling



This was the first production F4F-3. It differed from later production aircraft in that it had a telescopic gun sight in the canopy and provision for two cowling mounted machine guns. (Grumman)

The F4F-3 had a solid non-folding wing with two .50 caliber machine guns mounted in each wing. The pitot tube was carried on the port wing. This F4F-3 (BuNo 1844) was delivered from the factory with Yellow wings. (Grumman)

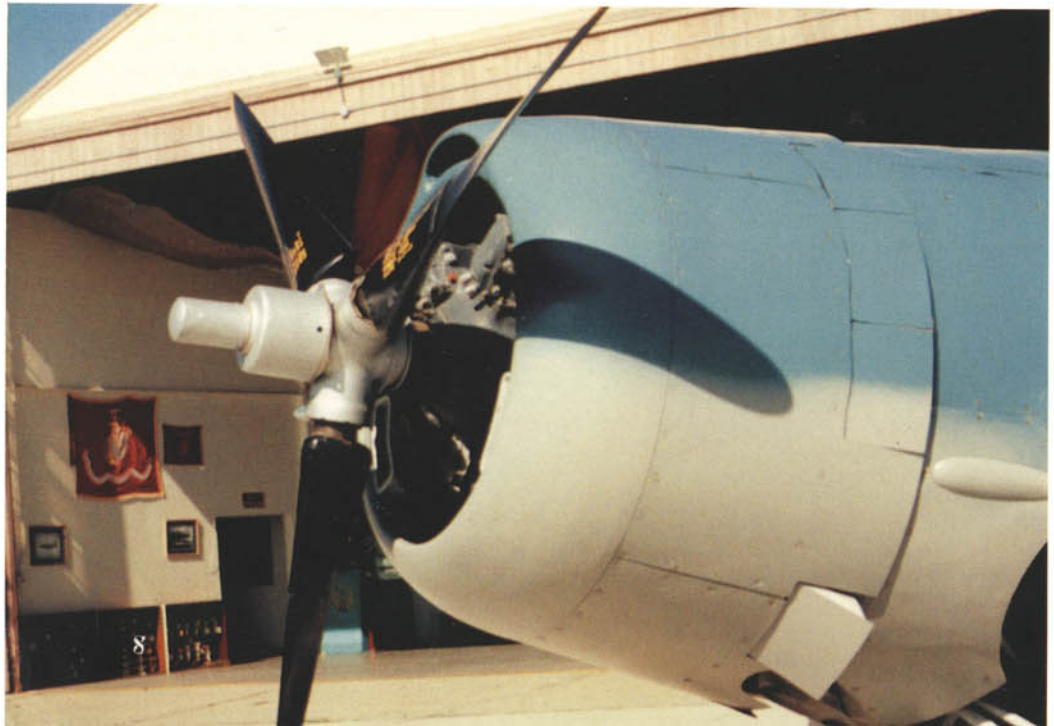


The first production F4F-3 was delivered in overall Silver Lacquer. The Curtiss Electric cuffed propeller was Silver Lacquer with four inch Red/Yellow/Blue strips on the tips and the Curtiss Electric logo on each blade. The small window in the port wing was the landing light. (Grumman)

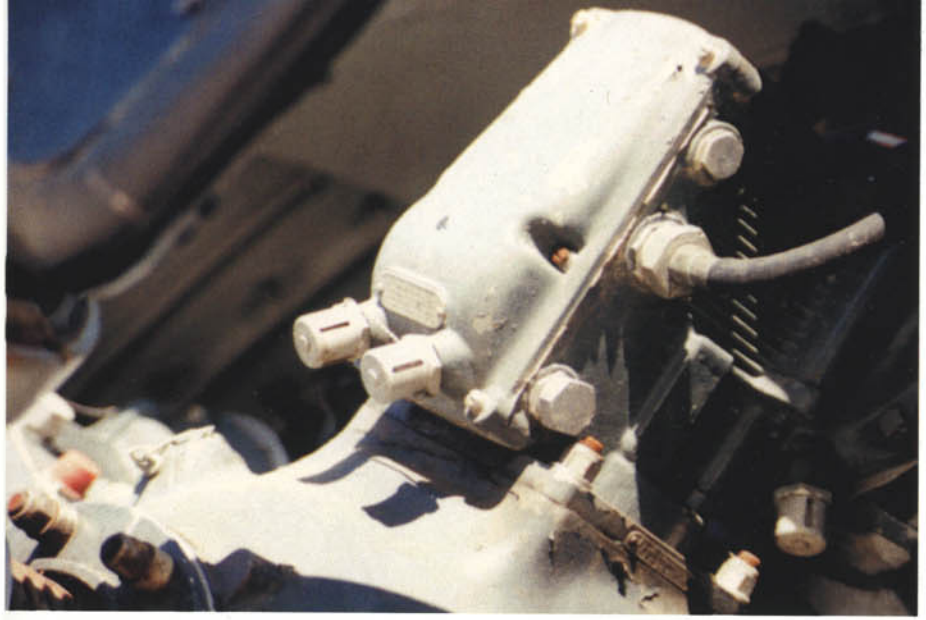
The bulge and trough on the nose was the breech fairing and blast tube trough for one of the two cowl Browning .50 caliber machine guns. These gun was deleted on later production F4F-3s in favor of wing mounted weapons. Only BuNos 1844 amd 1845 had these cowling guns. (Grumman)

The F4F-3 Wildcat was powered by different variants of the Pratt & Whitney R-1830 air cooled radial engine and used a number of different arrangements of cowling flaps and air scoops. This particular F4F-3 at the Command Museum, Marine Corps Air Station, El Toro, California, is the one that proves the exception to the rule. According to the restorer, the cowling arrangement is original, the same as when the aircraft was recovered from Lake Michigan; however, no F4F-3 was supposed to have this cowling arrangement. The aircraft's BuNo (12320) indicates that it is a late production F4F-3. As such, it has the correct cowl flap arrangement, but the cowl ring should not have a carburetor air scoop at the top. If the restoration team is correct and the cowling is original, then at some time during the aircraft's *service* career (probably in training command) the cowl ring had to have been replaced with one from another aircraft that had a carburetor air scoop at the top of the cowling. The three upper cowl flaps had a slight curve to the leading edge while the lower cowl flap had a straight leading edge. (Author)

The air scoop at the top of the cowling ring on the El Toro Wildcat was the carburetor air intake. According to the aircraft's BuNo, it should not have this intake. (Author)

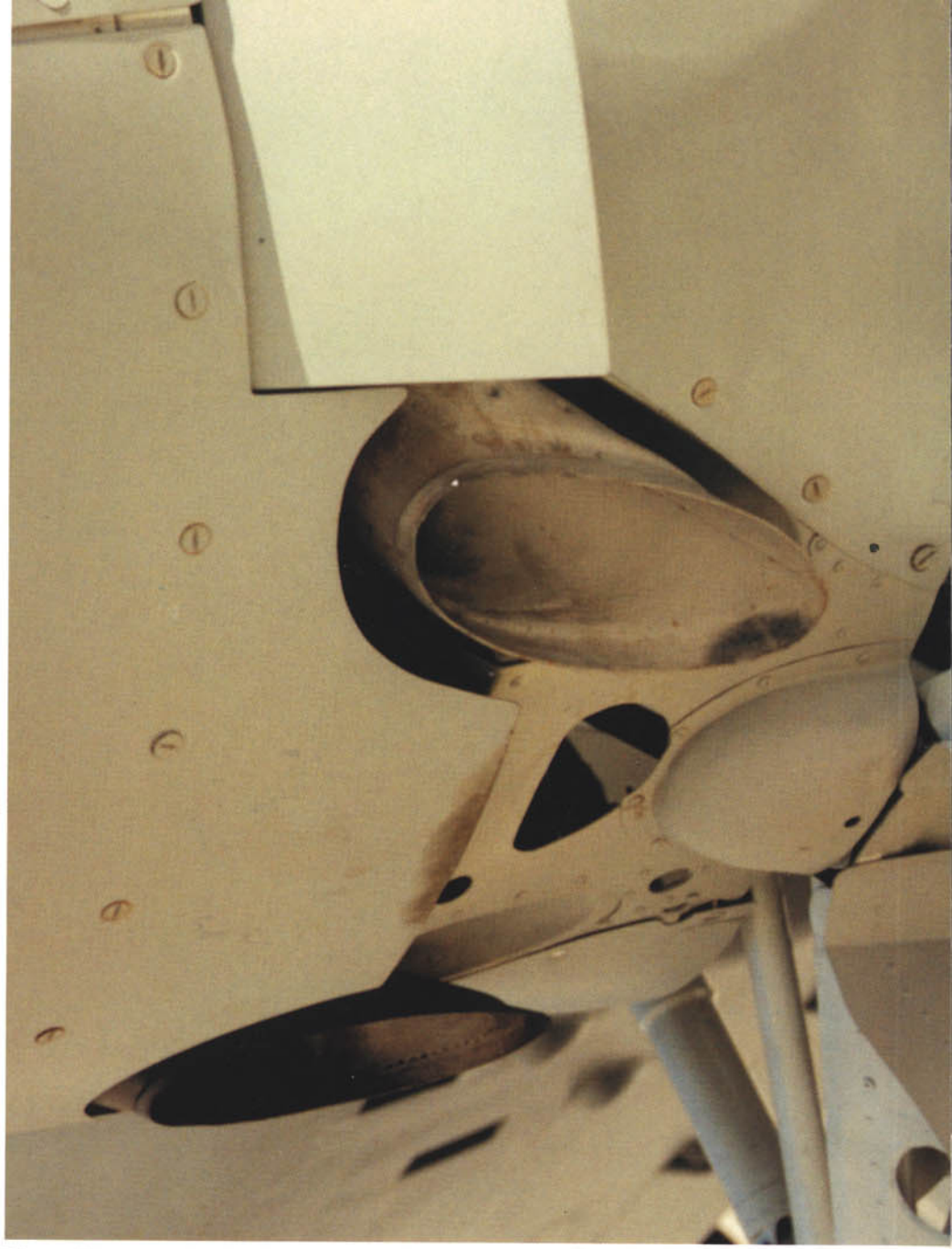


The two air scoops on either side of the cowling interior fed air to the intercooler. The Curtiss Electric propeller was of the cuffed type with its serial number stenciled on it in Yellow along with other important information. (Author)

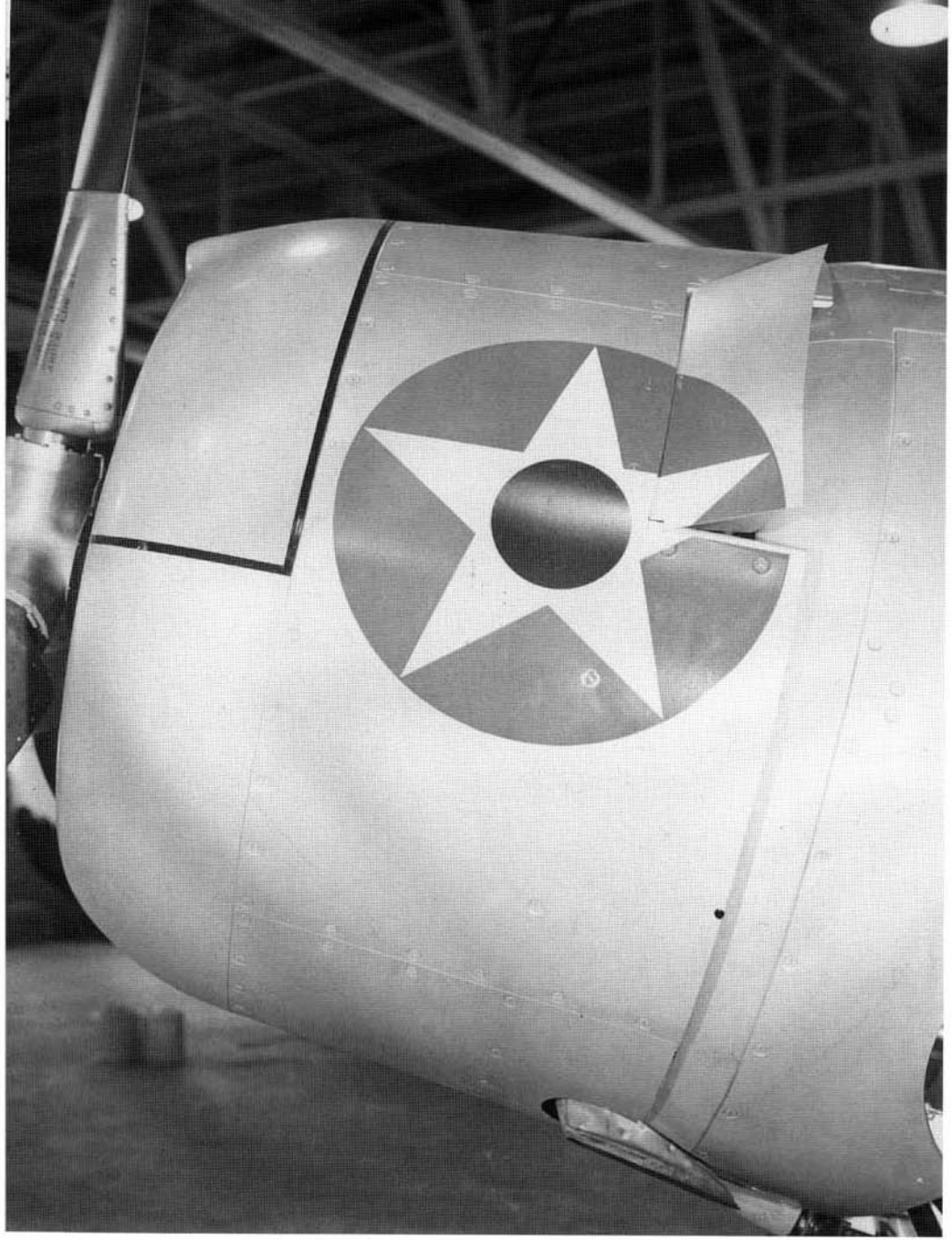


The magnetos on the Pratt & Whitney R-1830 engine incorporated cooling fins to aid in heat dissipation. This was the port magneto. (Author)

Wildcats powered by the Pratt & Whitney R-1830 air-cooled radial had two exhaust stacks, both located under the lower cowling on either side of the aircraft centerline. The starboard oil cooler is visible just to the left of the landing gear strut and the small hook located between the landing gear doors is the catapult bridle hook. (Author)

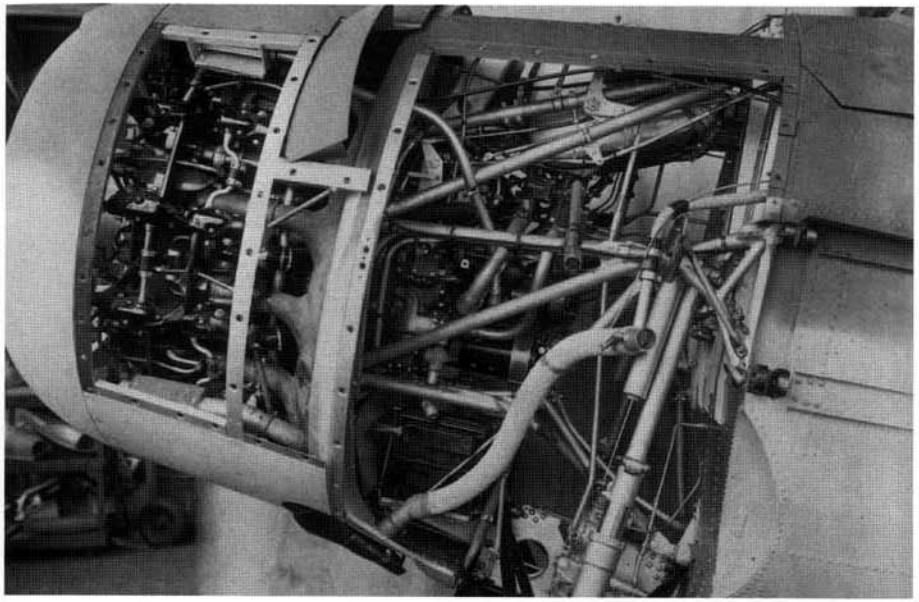


The engine exhaust stacks were oval in shape. The fairing located between the exhausts is the forward hinge point for the main landing gear doors. The cowling panels are secured in place with Dzus fasteners. (Author)

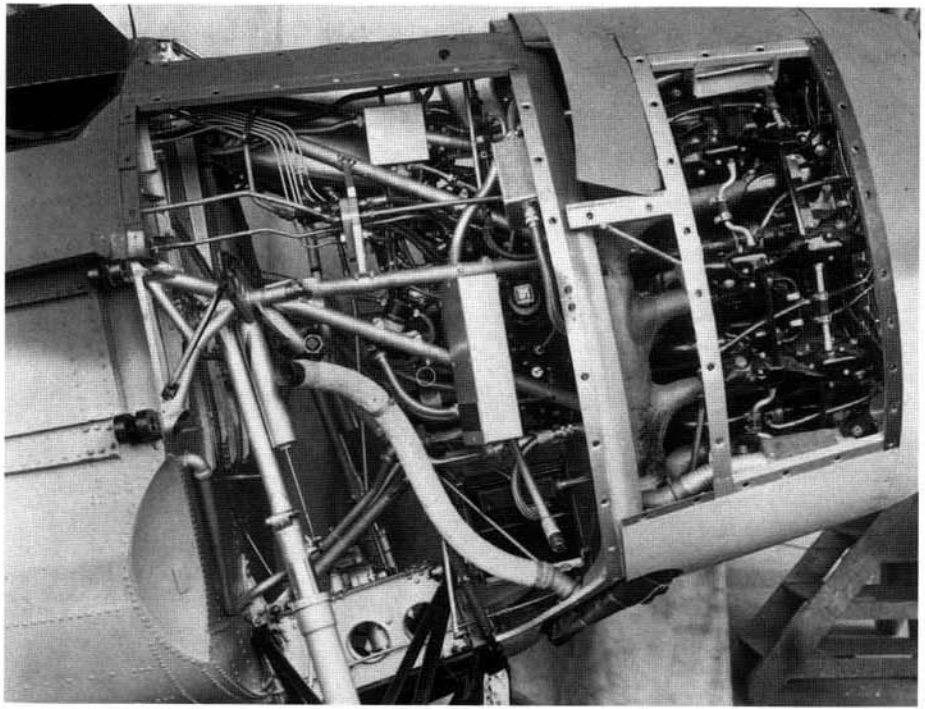


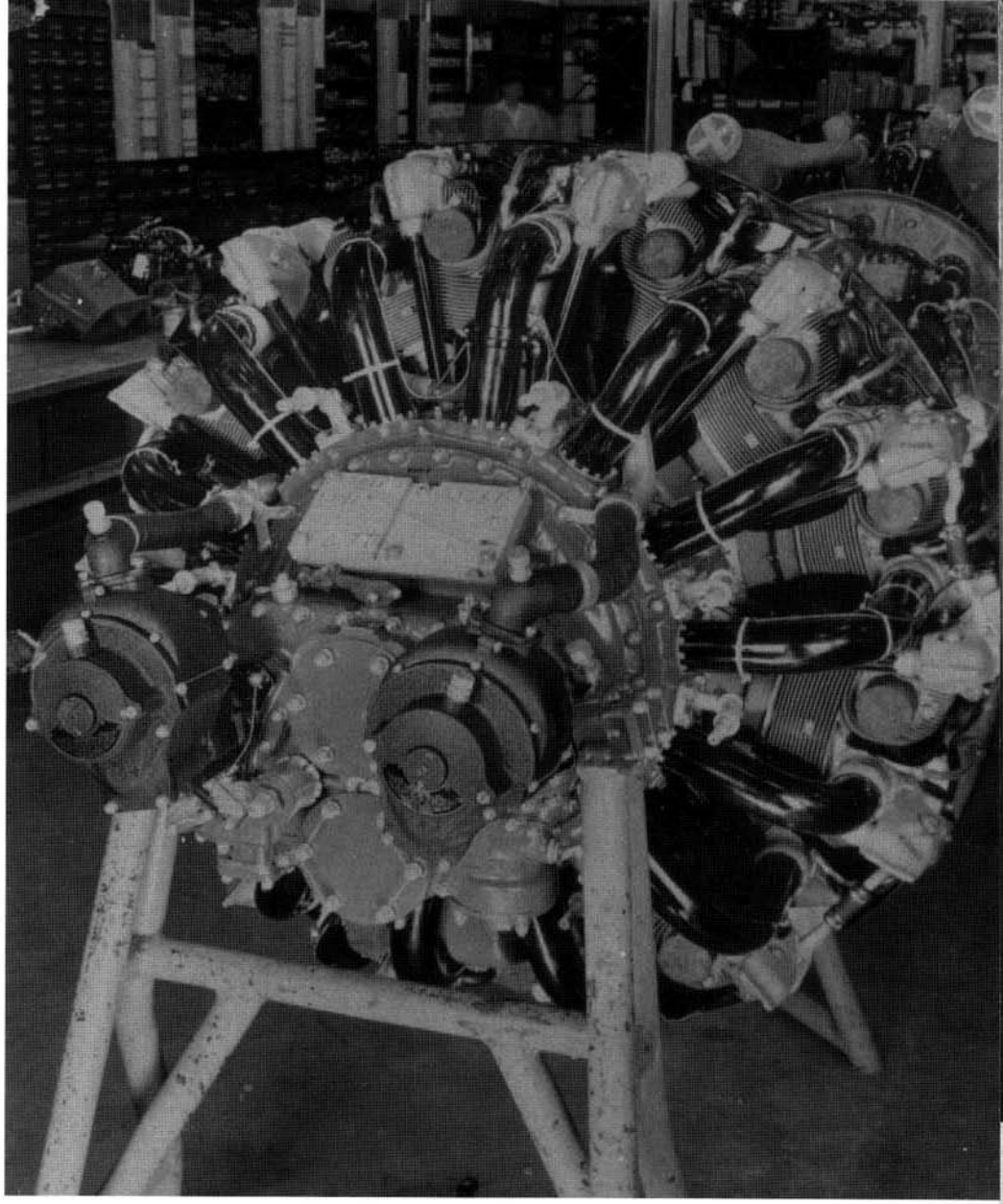
The early production F4F-3 cowling differed from the late production aircraft in that it had a single large cowl flap on either side of the cowling. The large star marking was known as the Neutrality Patrol Star. (Grumman)

The cowling on the F4F-4 had eight cowl flaps, four on either side of the cowl. The landing gear legs are Black, the color usually applied at the factory for F4F-4s. This aircraft was fitted with a Mk XLI bomb rack for 110 pound bombs on the wing undersurface. (Grumman)



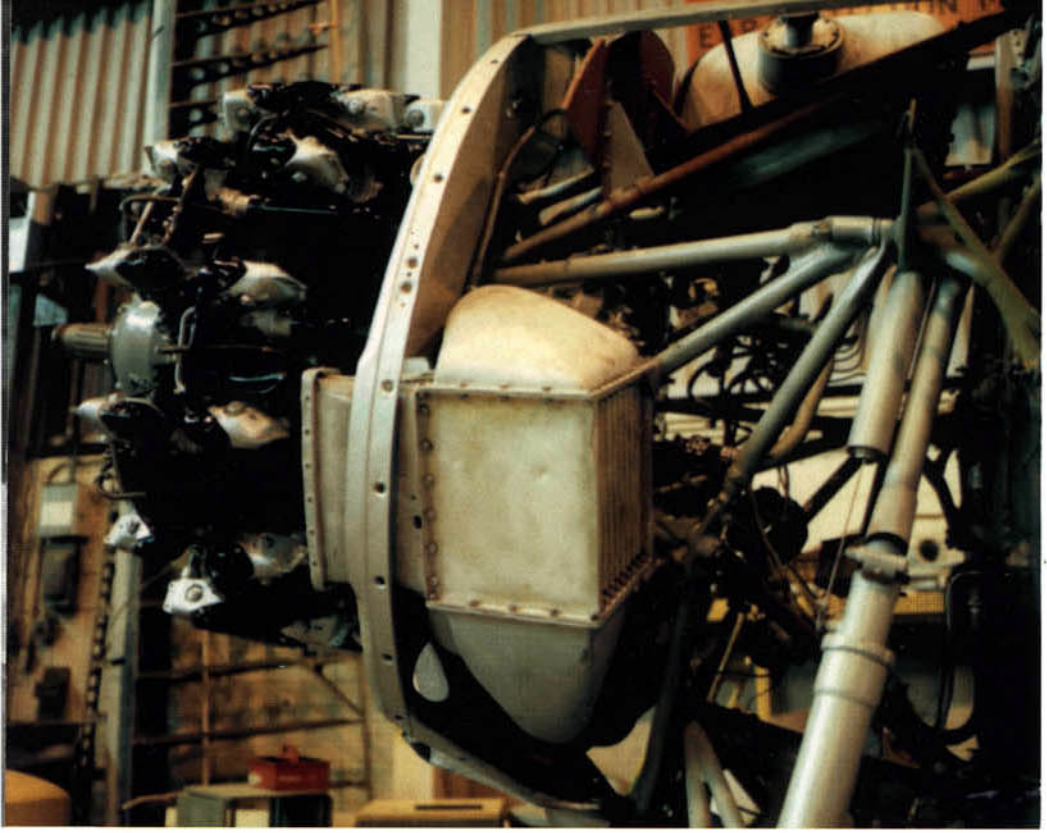
The cowling panels have been removed from this F4F-3A to allow for engine inspection. The battery is located just below the engine accessary section. The W shaped tubing is the engine mount. The oil tank is located at the top just forward of the firewall. Neither of these engines were fitted with supercharger intercoolers. (Grumman)

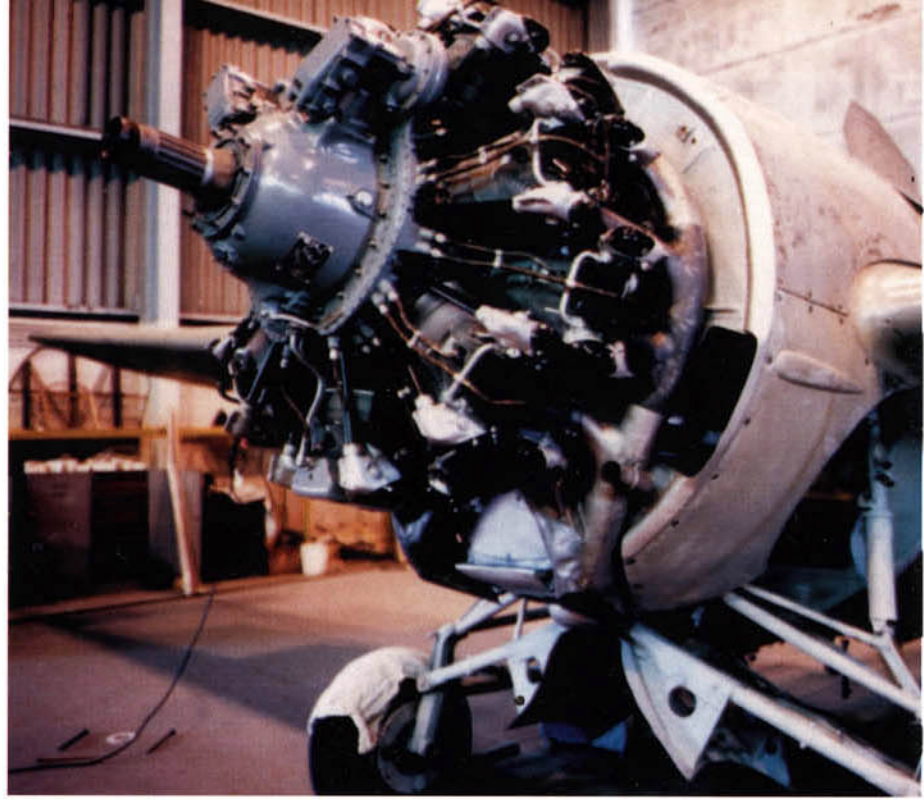




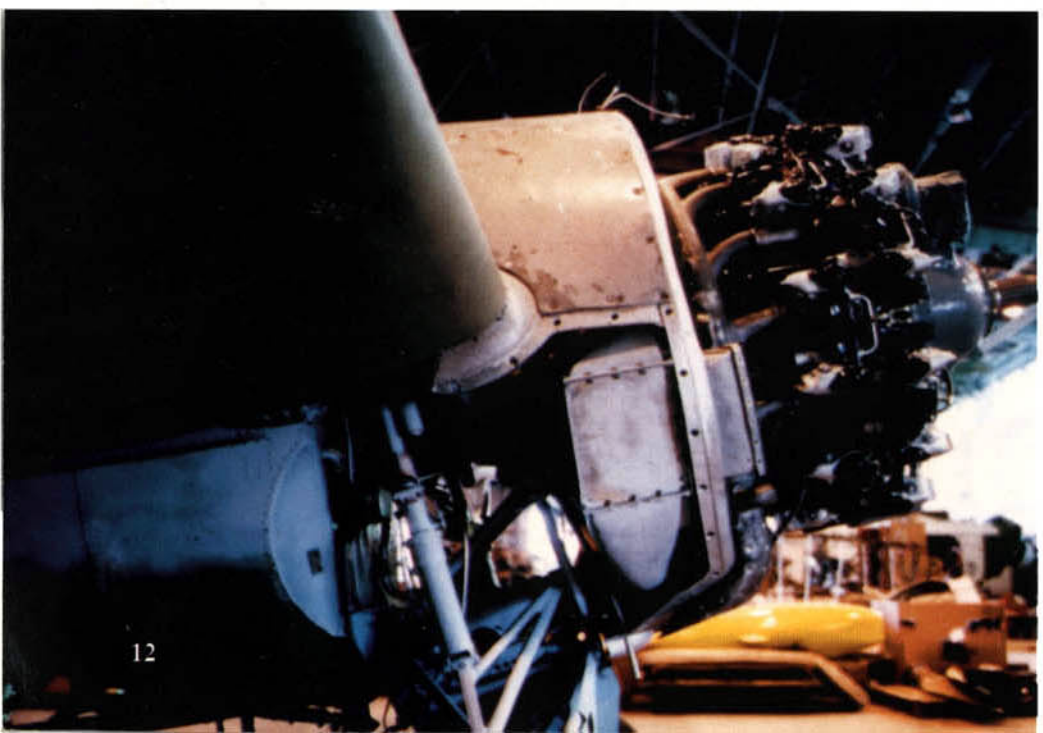
A Pratt & Whitney R-1830 1,200 hp air-cooled radial engine rests on a test stand at the Grumman factory. The rectangular area just above the magnetos is the mounting plate for the carburetor. (San Diego Aerospace Museum)

(Left) The starboard side of the engine reveals several Black square and rectangular electrical junction boxes The two Black circular objects just behind the engine mount are the wing attachment points. (Grumman)



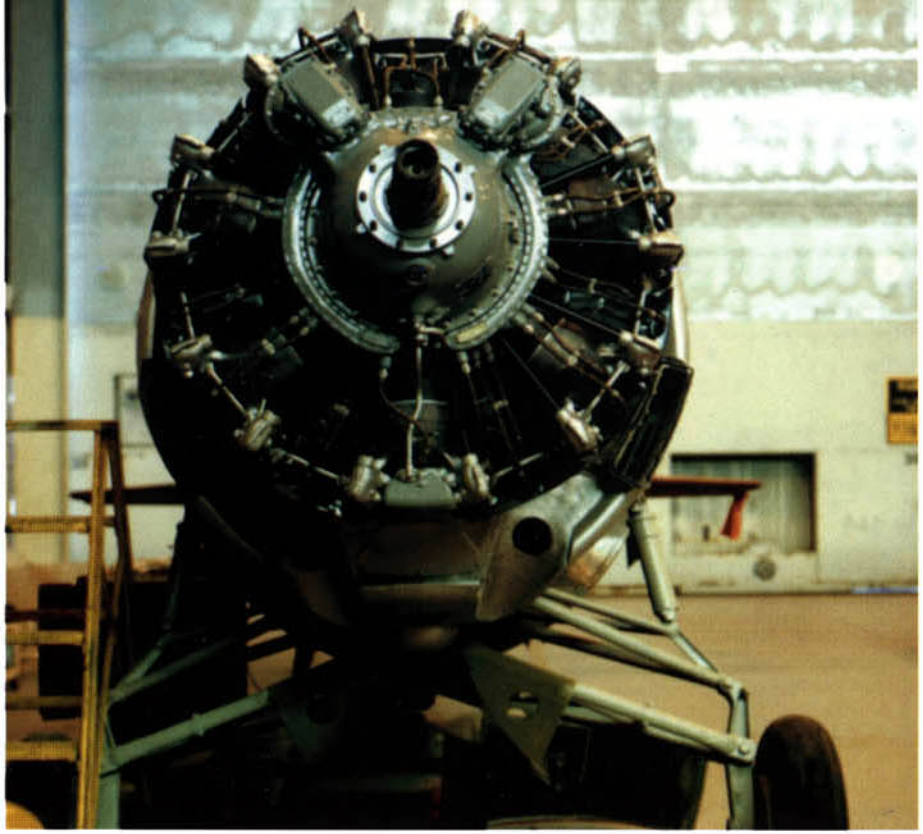


The engine exhaust collector ring had been added to the engine leading to the twin exhaust ports located at the bottom of the engine forward of the engine firewall. (National Museum of Naval Aviation)

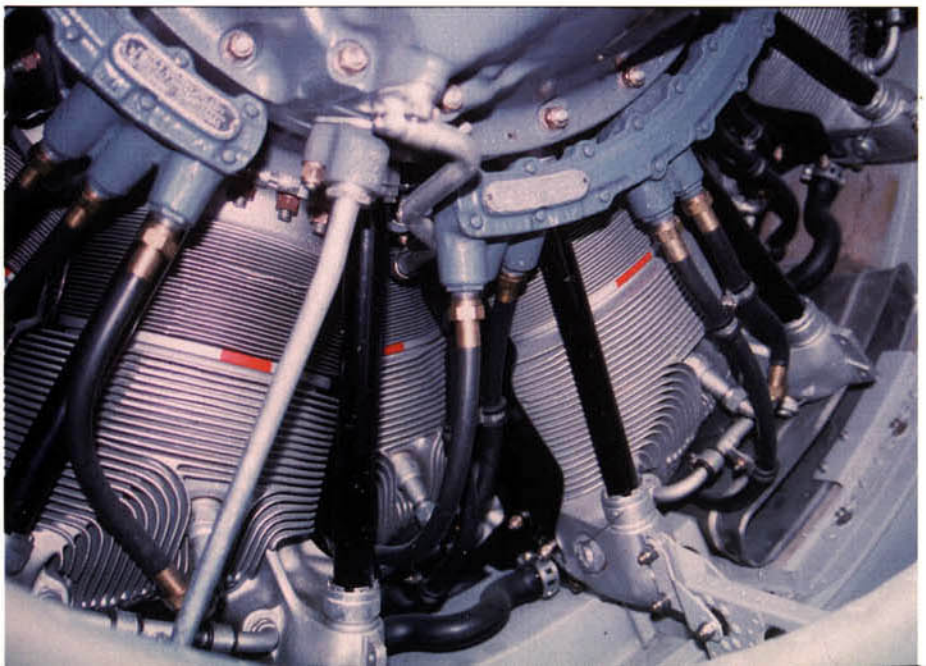


(Upper Left) The National Museum of Naval Aviation has restored a F4F-3 that was one of at least seven that were recovered from Lake Michigan. As part of the restoration process, the engine was torn down and rebuilt. The intercooler is just behind the stainless steel engine firewall and the ducting passes through the firewall to connect up with the air intake that was installed in the engine cowling. (National Museum of Naval Aviation)

The upper inspection panel has been replaced and fastened down. The lower panel will cover the intercooler and will form the forward portion of the landing gear wheel well. The Pratt & Whitney R-1830 air-cooled radial was a fourteen cylinder engine with the cylinders arranged in two rows of seven each. (National Museum of Naval Aviation)

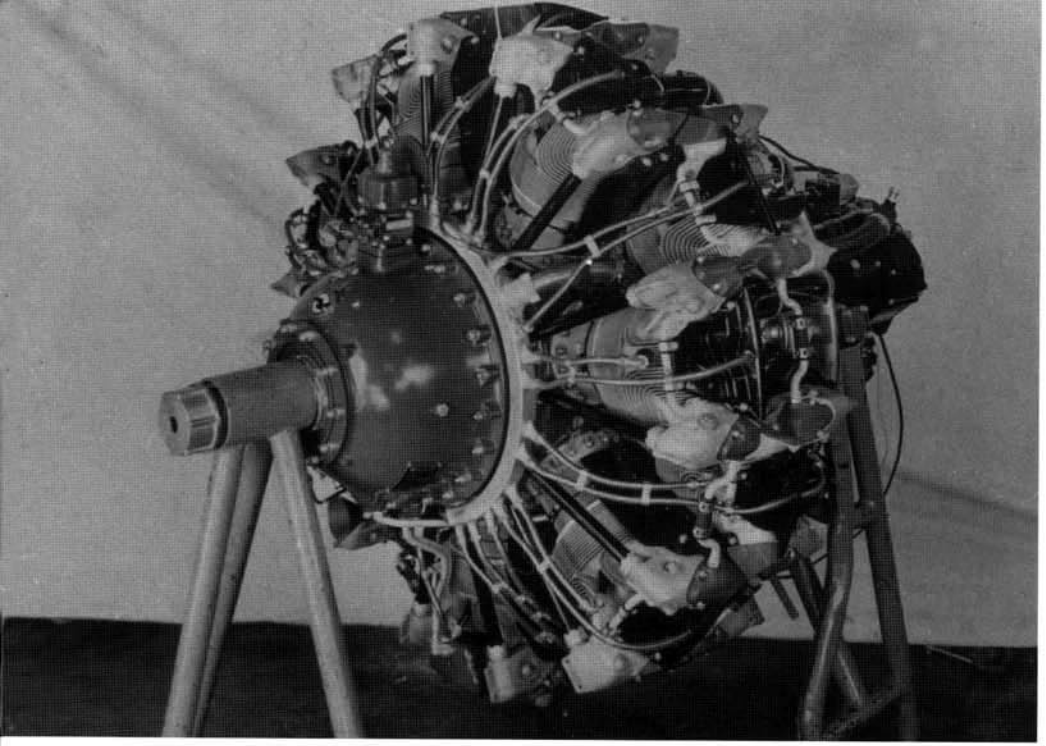


From head on the placement of the two magnetos and intercooler ducting is plainly visible. (National Museum of Naval Aviation)

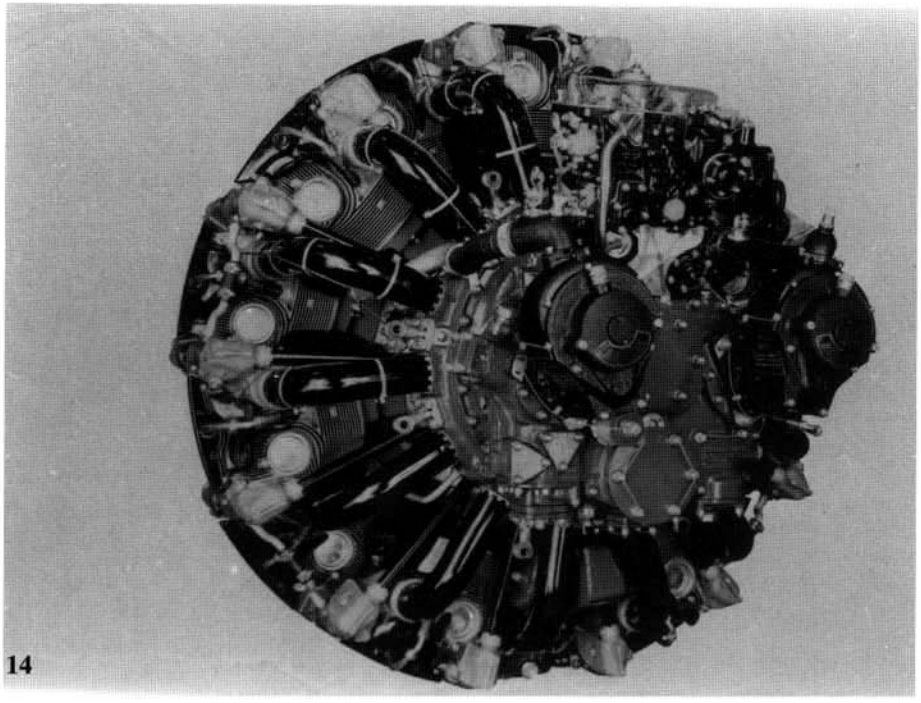


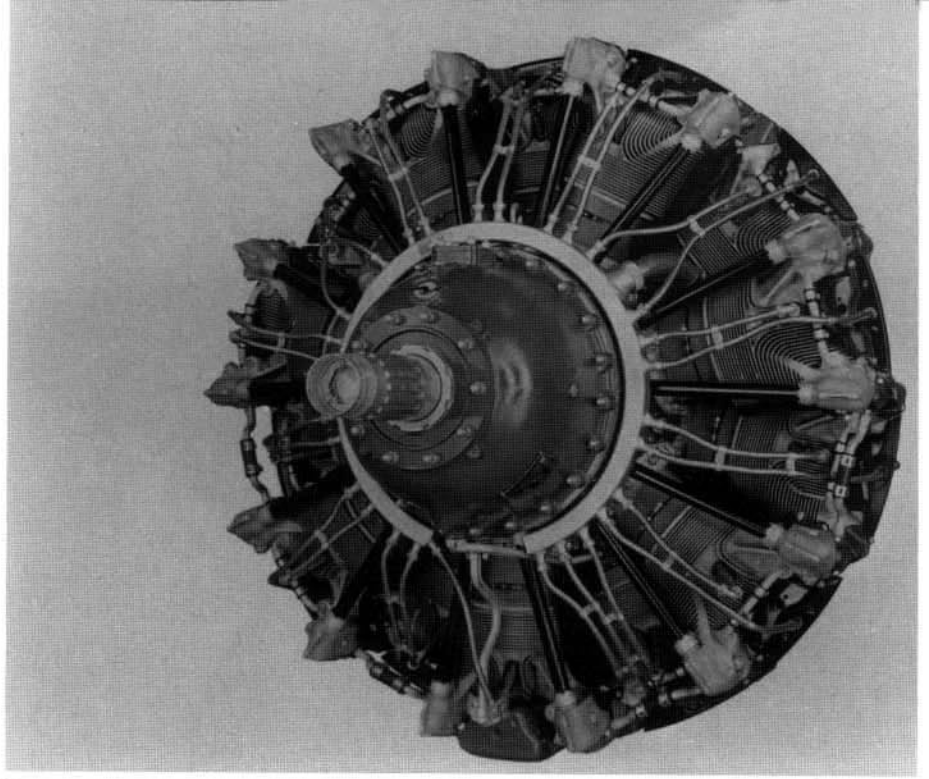
The engine exhausts were made of stainless steel and fed from an exhaust collector ring that was attached to the rear of the engine just ahead of the firewall. The exhaust ports themselves were oval in shape. (Lou Drendel)

The engine cylinders each have a number of cooling fins around the cylinder to help dispel heat. The Black wiring is part of the ignition wiring harness, the straight Black objects are pushrods and the Silver piping is part of the oil cooling system. The engine cylinders are Natural Metal in color, not Black as in popular belief.



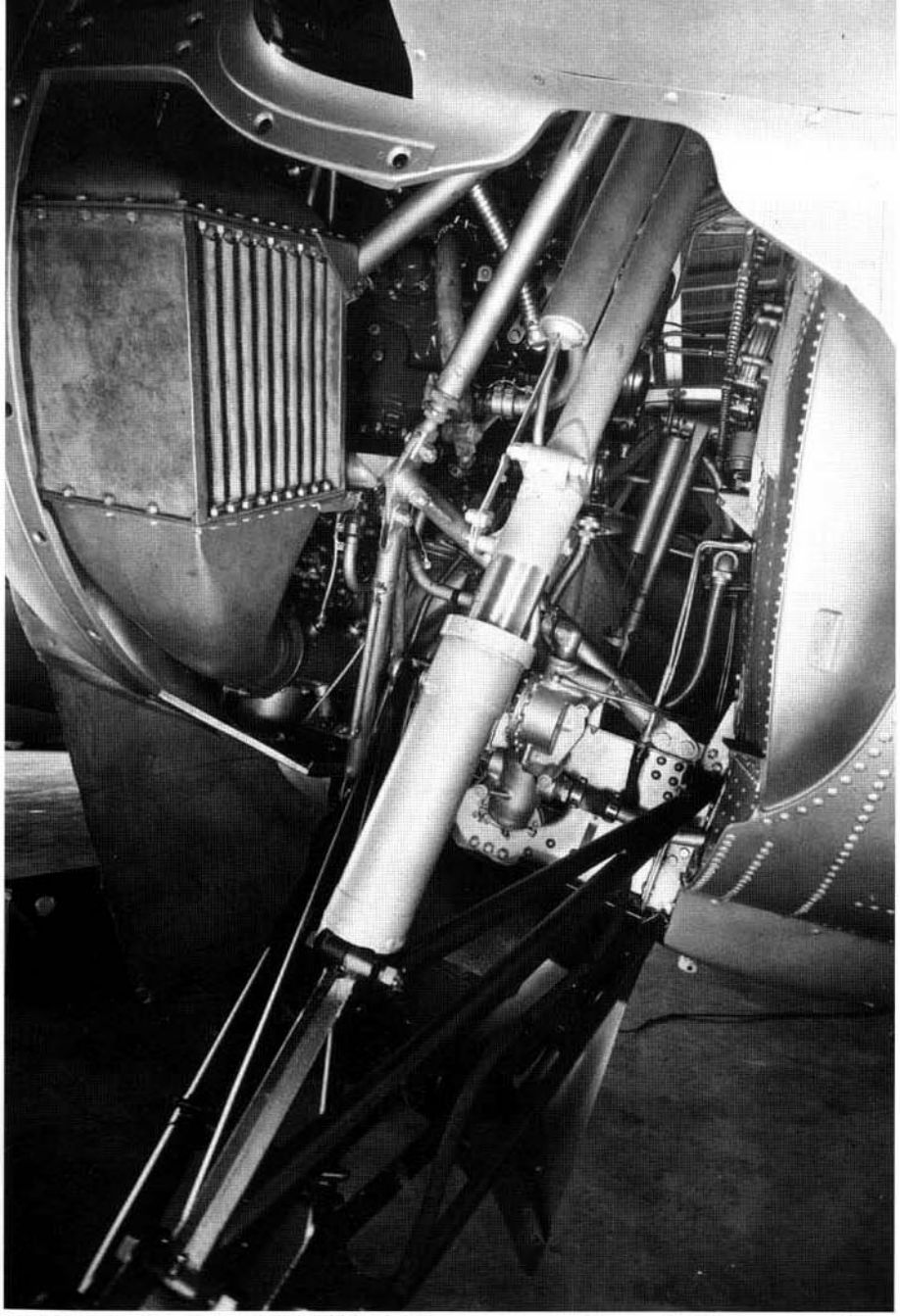
The ignition harness has two wiring runs going to each cylinder. The cylinders are Natural Metal, the ignition harness is Silver, the pushrod housings are Gloss Black and the crankcase is Engine Gray. (San Diego Aerospace Museum)



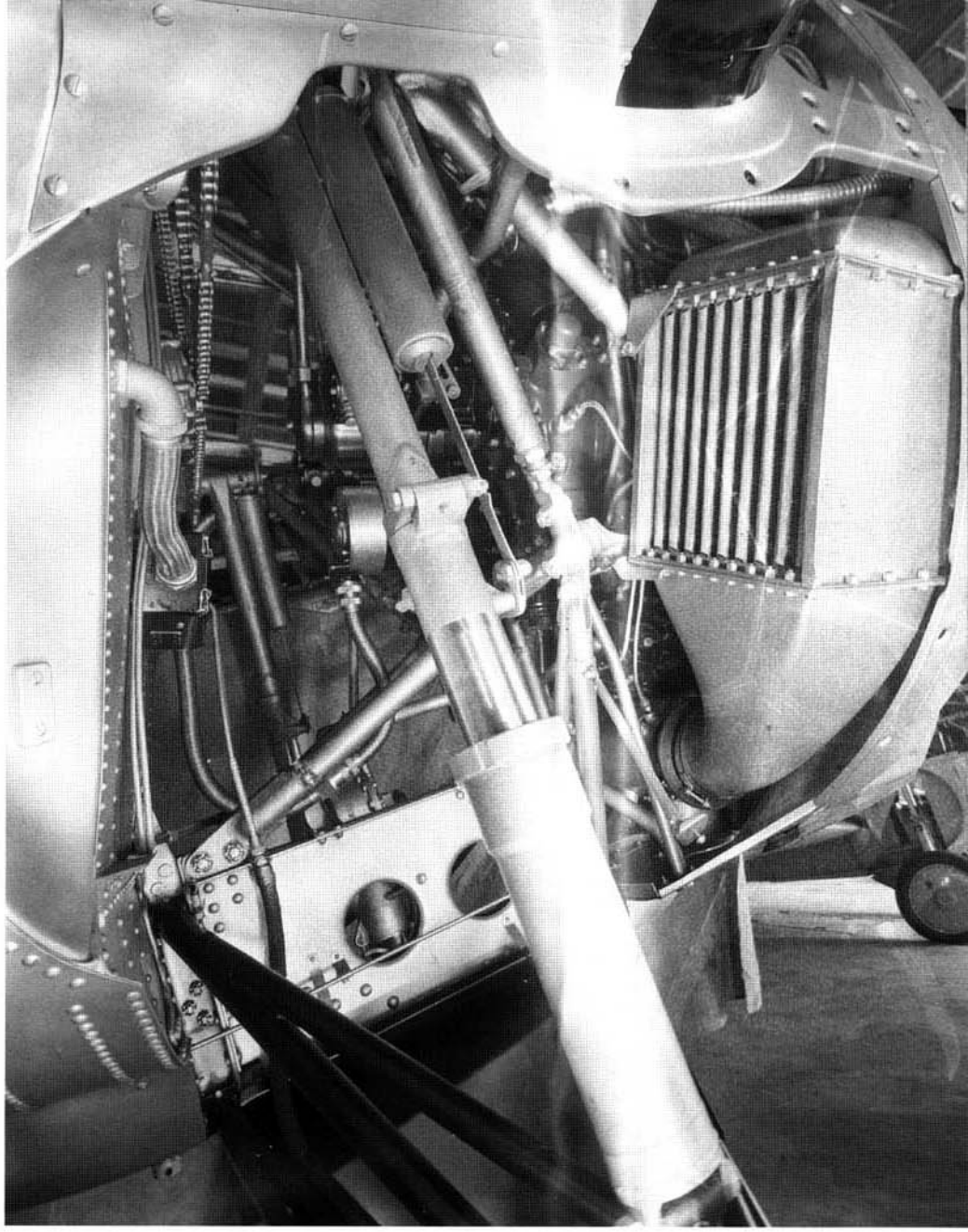


The Pratt & Whitney R-1830-76 was a two row, fourteen cylinder, air cooled radial engine capable of producing 1,200 horsepower. It weighed 1,467 pounds and was 48.2 inches in diameter. The mounting boss for the propeller governor is visible on the 12 o'clock position on the forward crankcase. The F4F-3 used the following variants of the R-1830 engine: R-1830-76 and R-1830-86, while the F4F-3A used the R-1830-90. The first one hundred aircraft off the production line used the R-1830-76, while the remainder of the production run used the R-1830-86 The R-1830-86 could be visually identified by the two magnetos mounted above the crankcase. (San Diego Aerospace Museum)

The rear of the R-1830-76 engine housed the accessory section. The round objects are the magnetos. Above and between the magnetos is the carburetor and just below the carburetor is the engine starter pad. (San Diego Aerospace Museum)

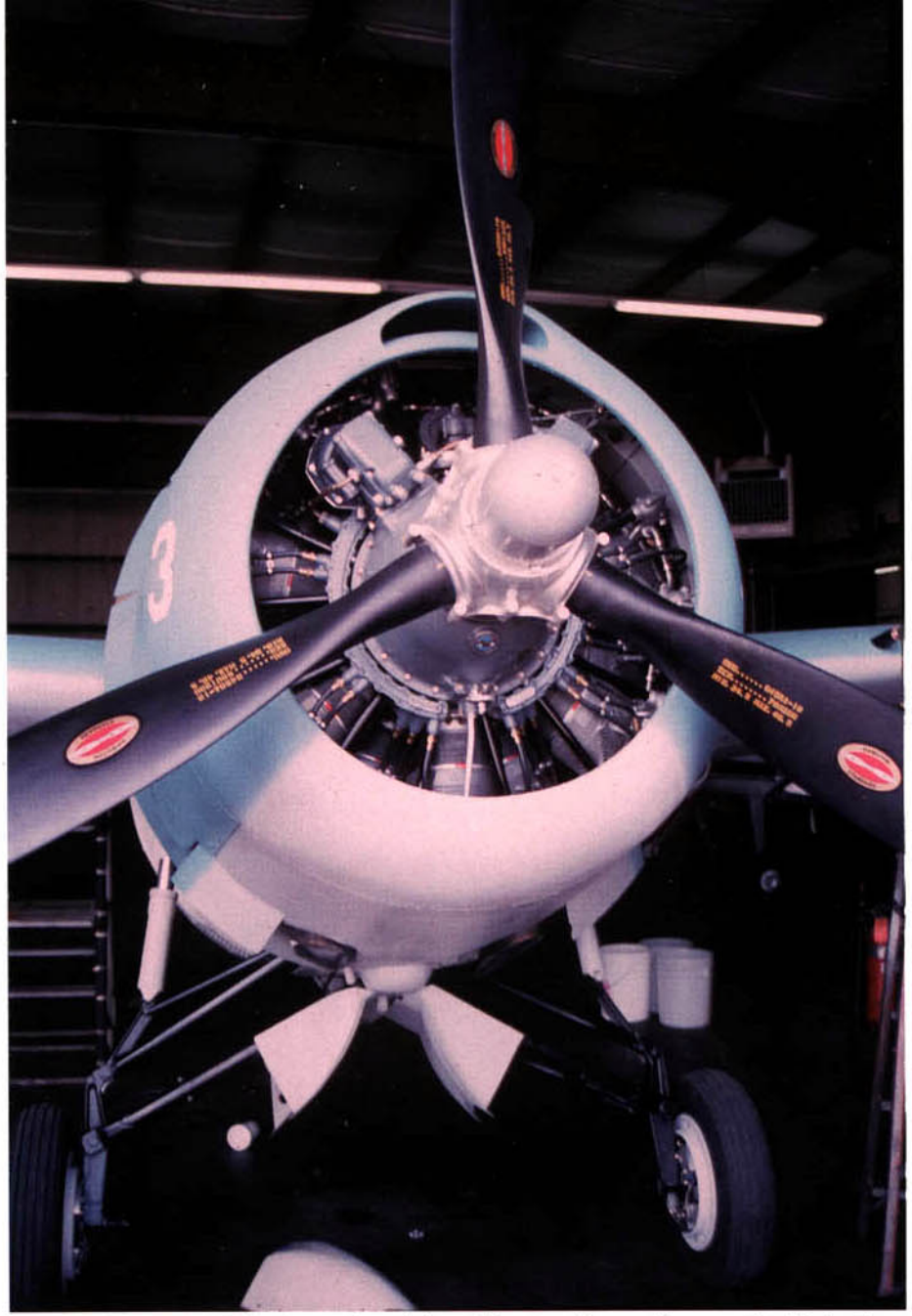


The port wheel well of a F4F-3 Wildcat. The access panel forward of the wheel well has been removed, revealing the supercharger intercooler. Many of the landing gear struts have been painted Gloss Black, while the oleo strut appears to be Light Gray. (Grumman)



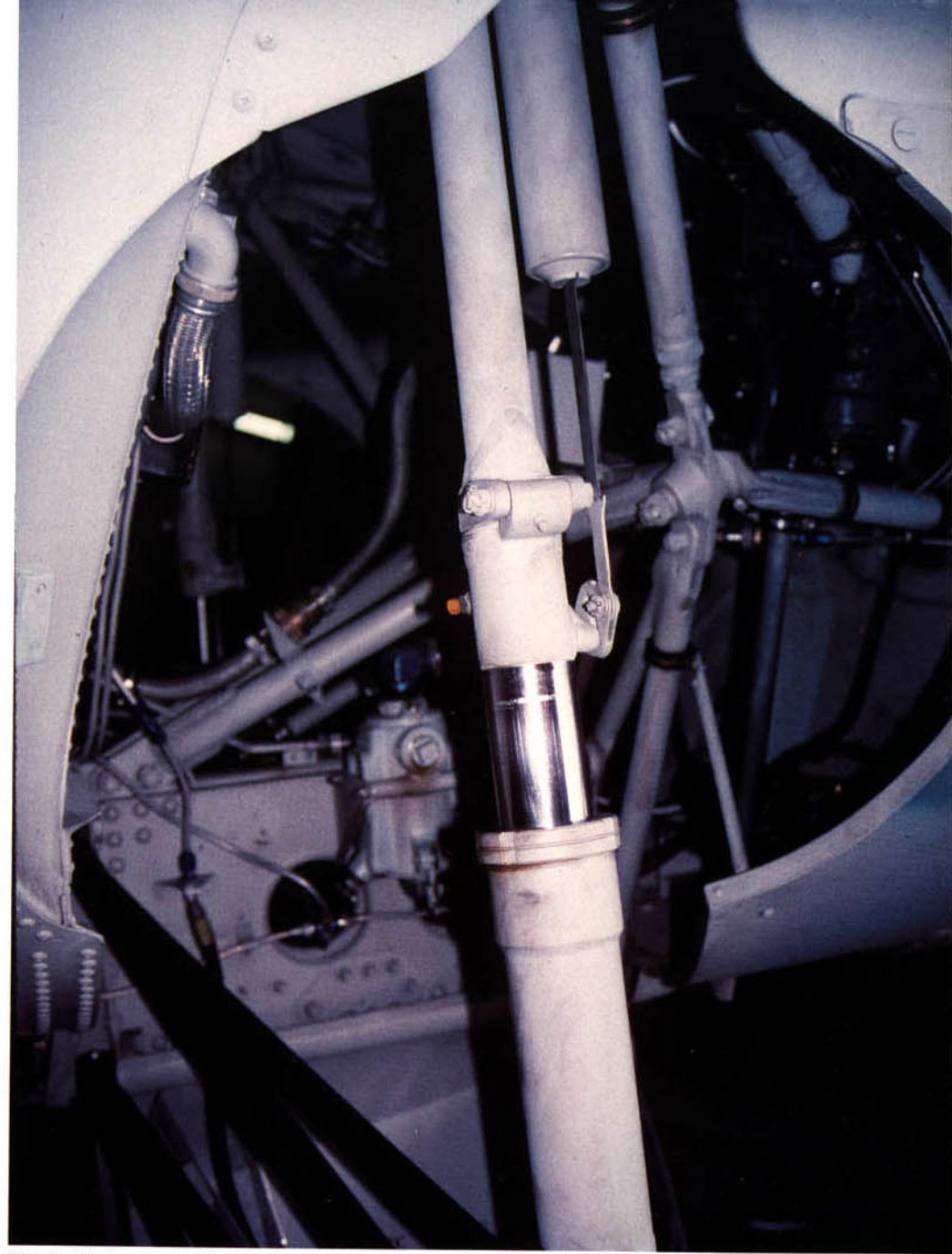
The starboard wheel well of a F4F-3. The chain visible on the rear bulkhead is the landing gear retraction chain. The landing gear was operated by a handcrank in the cockpit. The handcrank was turned clockwise to raise the landing gear and counter-clockwise to lower the gear. It took some twenty-eight turns to raise or lower the gear. (Grumman)

This restored F4F-3 has been modified with a non-standard propeller. Instead of a cuffed Curtiss Electric propeller, it has been fitted with a Hamiliton Standard uncuffed propeller (the Hamilton Standard logo is visible on the propeller blade in the foreground. (Lou Drendel)

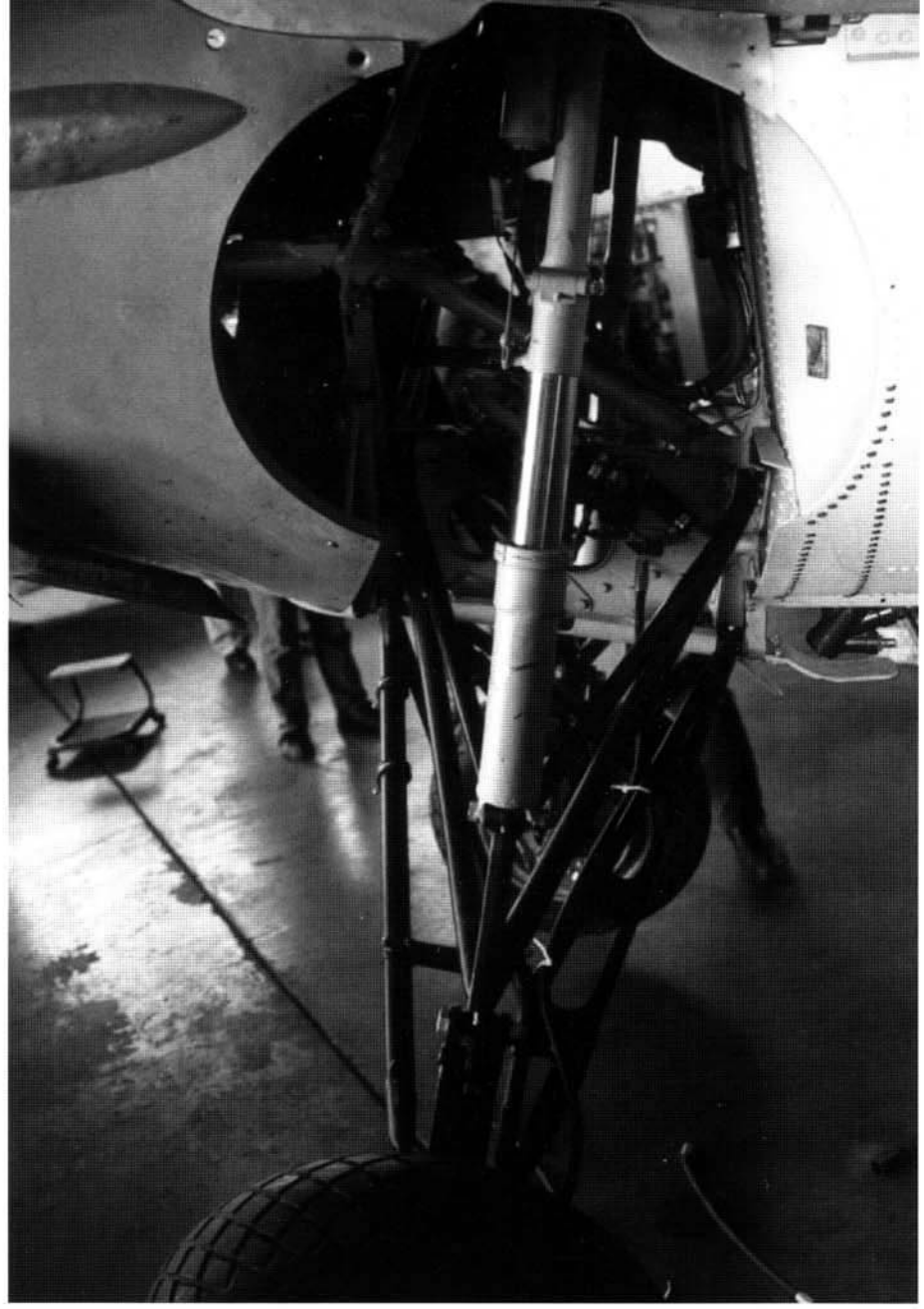


The cowling on the Wildcat was close fitting. The stenciling on the propeller blade gives the propeller pitch settings, both minimum and maximum, and propeller serial number in Yellow. (Lou Drendel)

The engine cowling flaps in the full open position for maximum cooling. Normally, this setting would be used during ground run-ups of the engine. (Lou Drendel)



This is the port wheel well of a F4F-3. The main landing gear leg is an oleo strut and the piston is Natural Metal, while the strut is Light Gray. The remaining struts are Black. (Lou Drendel)



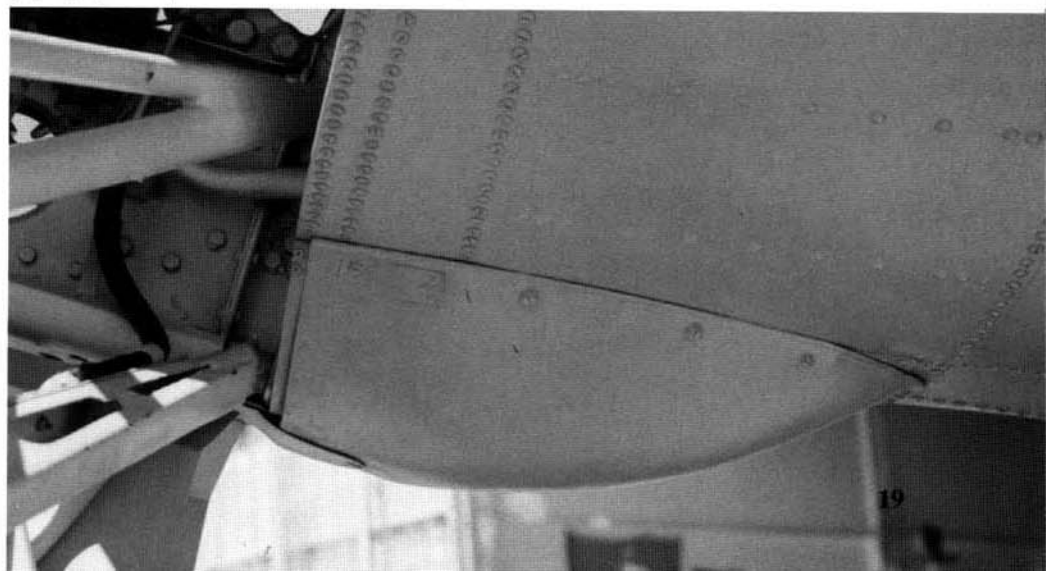
(Above and Left) The main landing gear of two restored F4F-3s. The El Toro F4F-3 (left) has the struts and wheel well painted in the same color as the surrounding surface (Light Gray) which was a common practice. The F4F-3 restored by Mr. Dick Hansen and Mr Jim Porter. (above) originally had the struts in delivery colors, Light Gray for the main strut and Black for the others. (Author and Lou Drendel)

This F4F-3 belongs to Marine Corps Air Station El Toro, California Command Musuem, The Wildcat was one of the Lake Michigan aircraft and was restored in Jacksonville, Florida. The small window in the wing leading edge is the gun camera window. (Author)

The window mounted in the lower fuselage under the cockpit was to allow the pilot some limited field of view below the aircraft. The mid-wing effectively blocked the pilots view below and these windows helped relieve the problem somewhat. (Author)

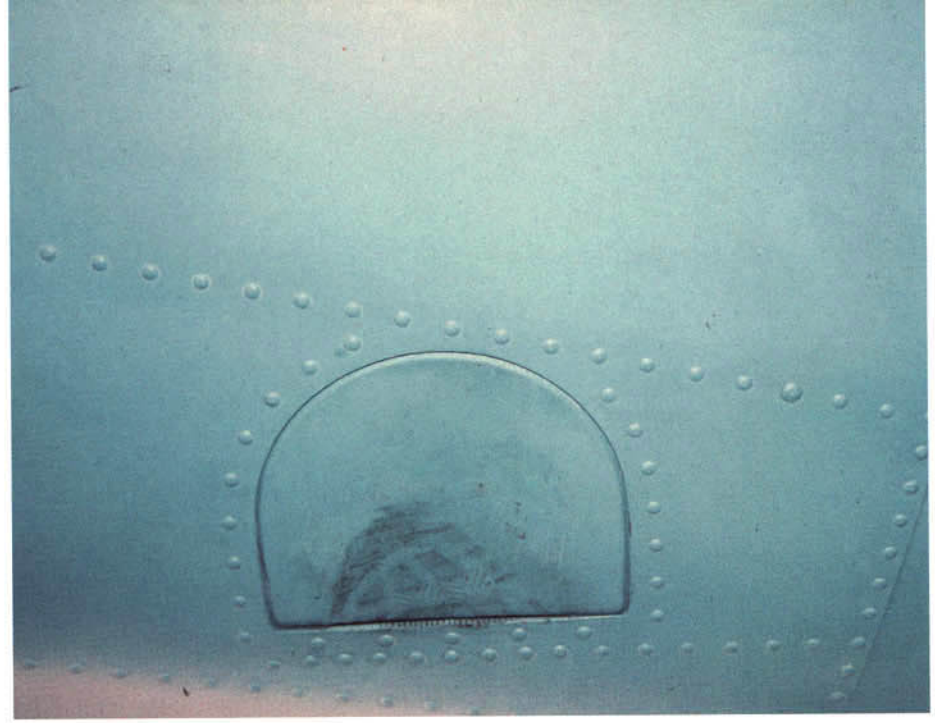
The wing on the F4F-3 was non-folding and had a straight pitot tube. The scoop under the wing was the air scoop for the oil cooler. Just outboard of the oil cooler are two openings, these are shell ejection ports for the wing mounted.50 caliber machine guns. There were two windows on either side of the lower fuselage. The fairings along the rear of the wing cover the push rods for the aileron and flaps. Just below the Black six on the fuselage side is a push-in foot hold. The circle just inboard of the national insignia is the retractable landing light. (Author)

The ventral landing gear fairing covered part of the upper drag link strut and fuel sump piping. (Author)



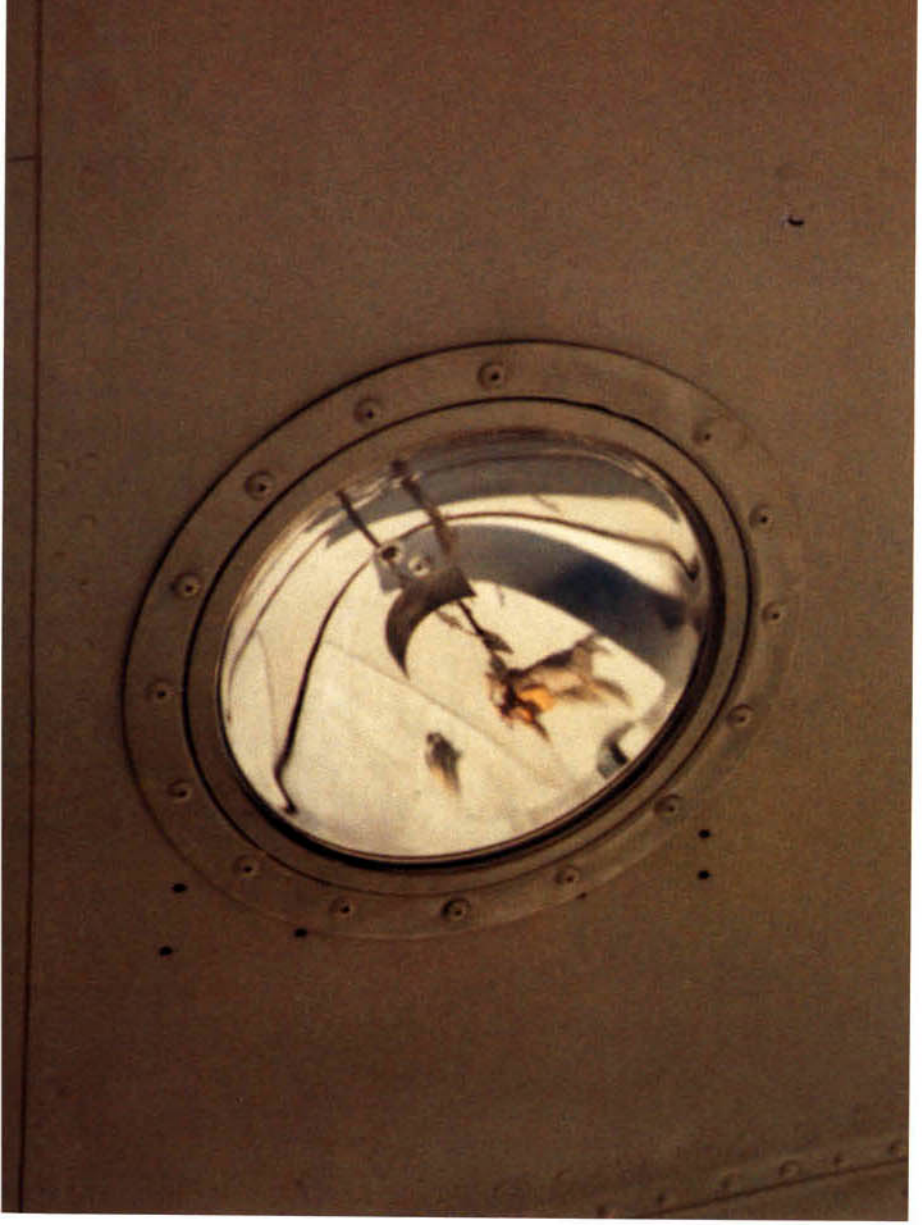
The Wildcat's mid-wing design led to a very limited view below the aircraft and the F4F-3 and F4F-4 had a pair of windows mounted in the lower fuselage under the cockpit to give the pilot some view below the aircraft. These windows were deleted on later variants of the Wildcat. (Lou Drendel)

This is the pitot head on a F4F-3 Wildcat. The F4F-3 had a straight pitot tube mounted near the wingtip of the port wing, while the F4F-4 and later variants had an L shaped pitot tube mounted below the port wingtip. (Lou Drendel)



There are two push-in doors on the port side of the fuselage that are designed to assist the pilot in boarding the aircraft. One serves as a hand hold and the larger one serves as a foot hold. (Lou Drendel)

The push-in door is located just below the numeral six on the fuselage side. The small White post in the national insignia is a lead-in for the UHF antenna wire. The Black circle just behind the fuselage star is the tail lift point. (Author)



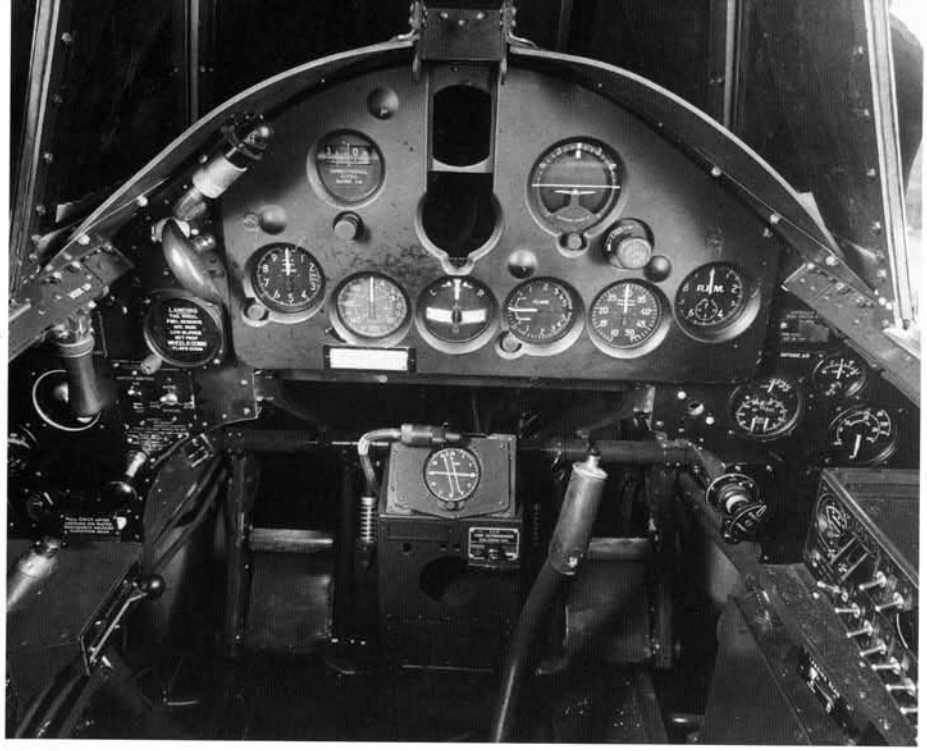
The F4F Wildcat series was equipped with a retractable landing light located mid-way on the port wing undersurface. The light swung down approximately ninety degrees when in the down position. (Author)

The port (above) and starboard (below) oil cooler air intakes on the undersurface of the wing. The openings next to them are shell ejection ports for the two wing mounted Browning .50 caliber machine guns. The F4F-3 carried four machine guns, while the F4F-4 carried six. Some pilots stated that they preferred the armament of the F4F-3 since the -3 carried more ammunition. (Author)

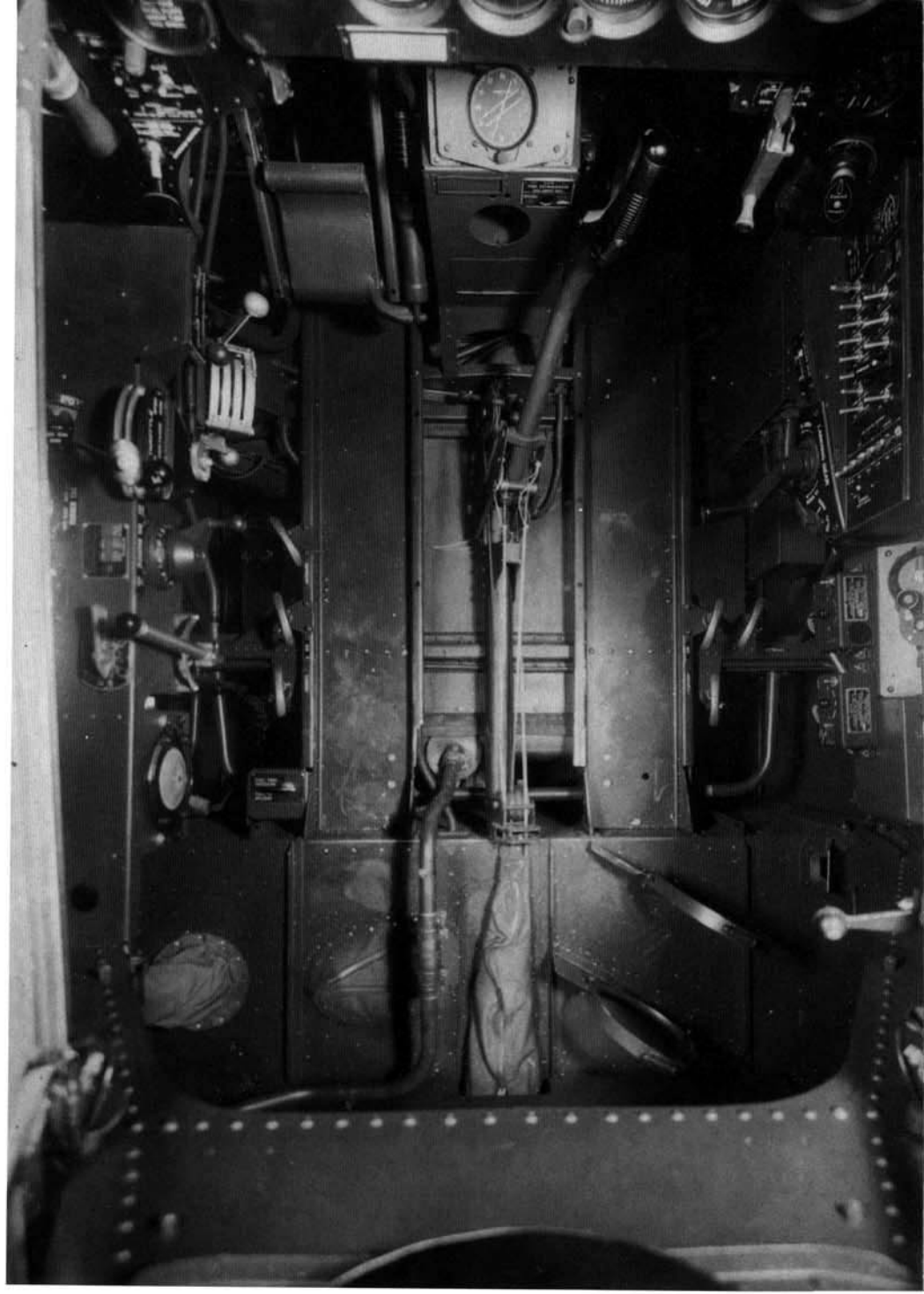
This early production F4F-3 had a hole in the canopy windscreen for a telescopic gun sight. The circular object just inside the windscreen is the rear bracket for the mount. The canopy slid rearward to open and could be jettisoned in an emergency. The national insignia on the forward fuselage was known as a Neutrality Patrol Star. (Grumman)

This later production F4F-3 had a reflector gun sight and a ring and bead sight as a back-up. The cockpit interior of the F4F was painted Zinc Chromate Green and the headrest was Leather. (Grumman)

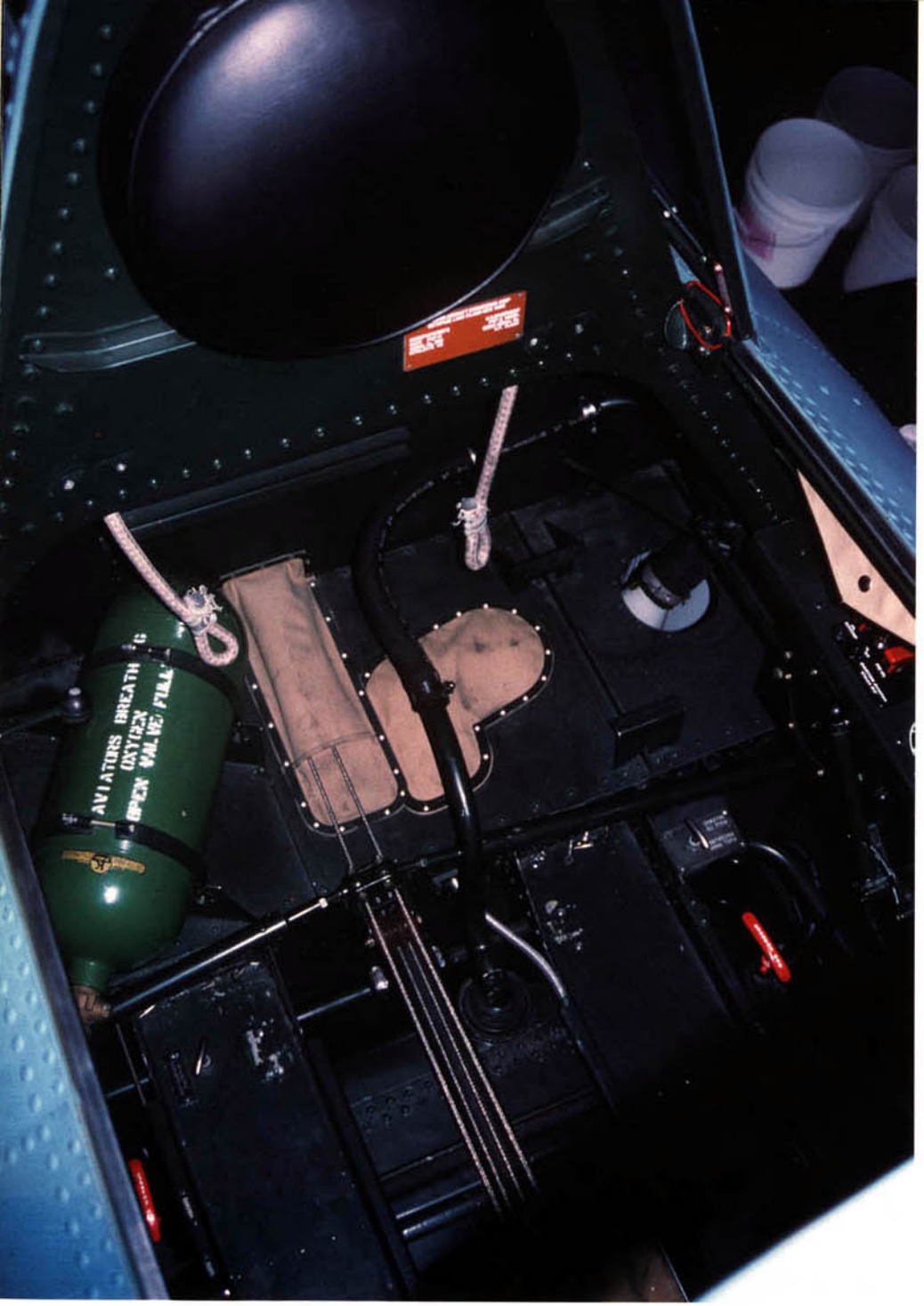
This restored F4F-3 has both a reflector gun sight and a gun camera mounted on the instrument panel coming. The instrument in the center of the panel is the turn and bank indicator,. To the right are the vertical speed indicator, engine manifold pressure gauge, and engine RPM gauge. To the left are the air speed indicator and altimeter. (Lou Drendel)

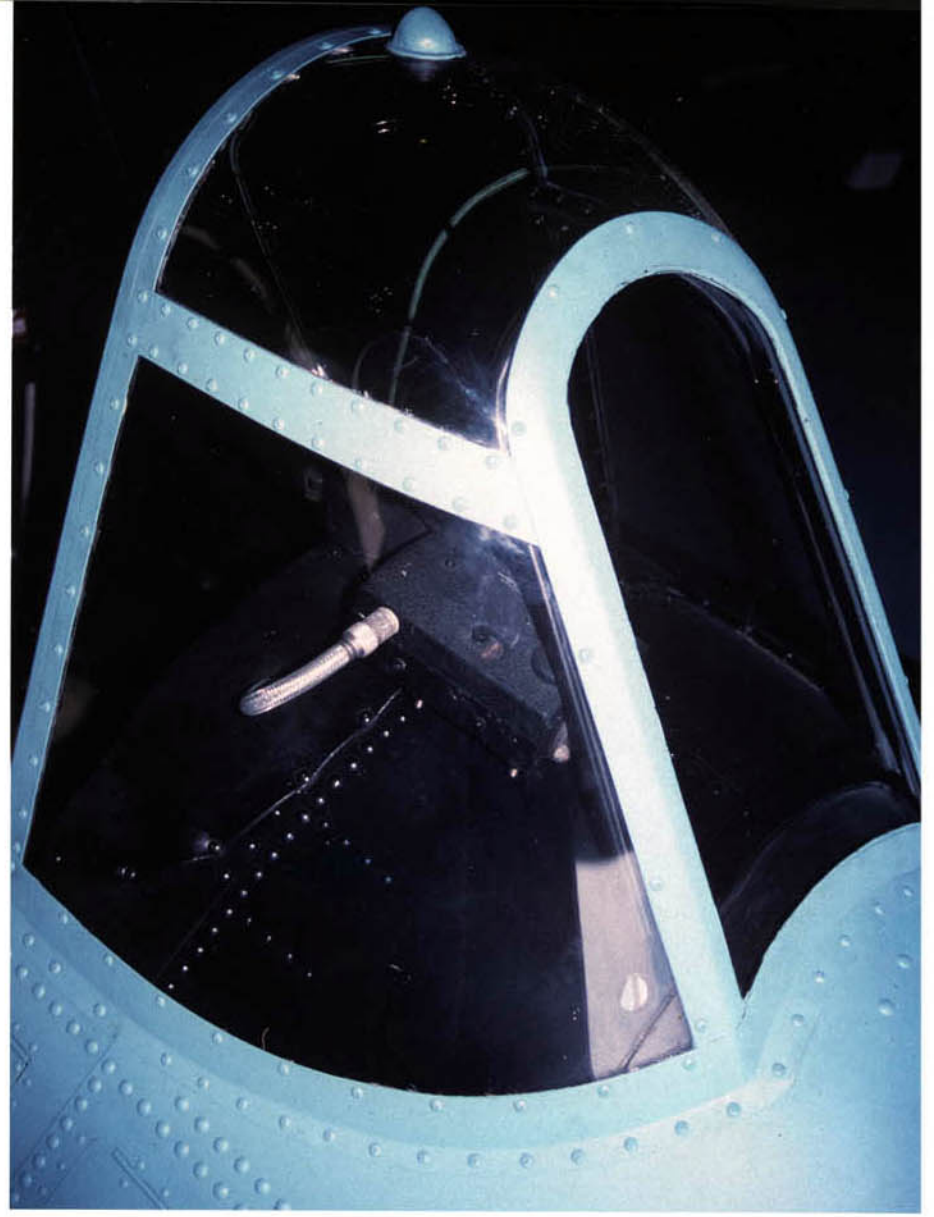


The instrument panel in the F4F-3 was Flat Black. This aircraft is lacking the reflector gun sight which would be installed on the bracket above the instrument panel. The instrument to the left of the open area is the directional gyro, the one to the right is the artificial horizon. From left to right, altimeter, airspeed indicator, turn and bank coordinator, vertical speed indicator, manifold pressure gage and engine RPM gage. Above the manifold pressure gage is the artificial horizon cage handle . When engaged, the cage handle prevents the artificial horizon gyro from coming uncaged. Below the instrument panel is the RMI. To its right is the engine primer handle. The group of instruments to the lower right are all engine instruments including; oil pressure, fuel quantity gage, carburetor air temp gage. The handle on the canopy railing is the tail hook control. (Grumman)



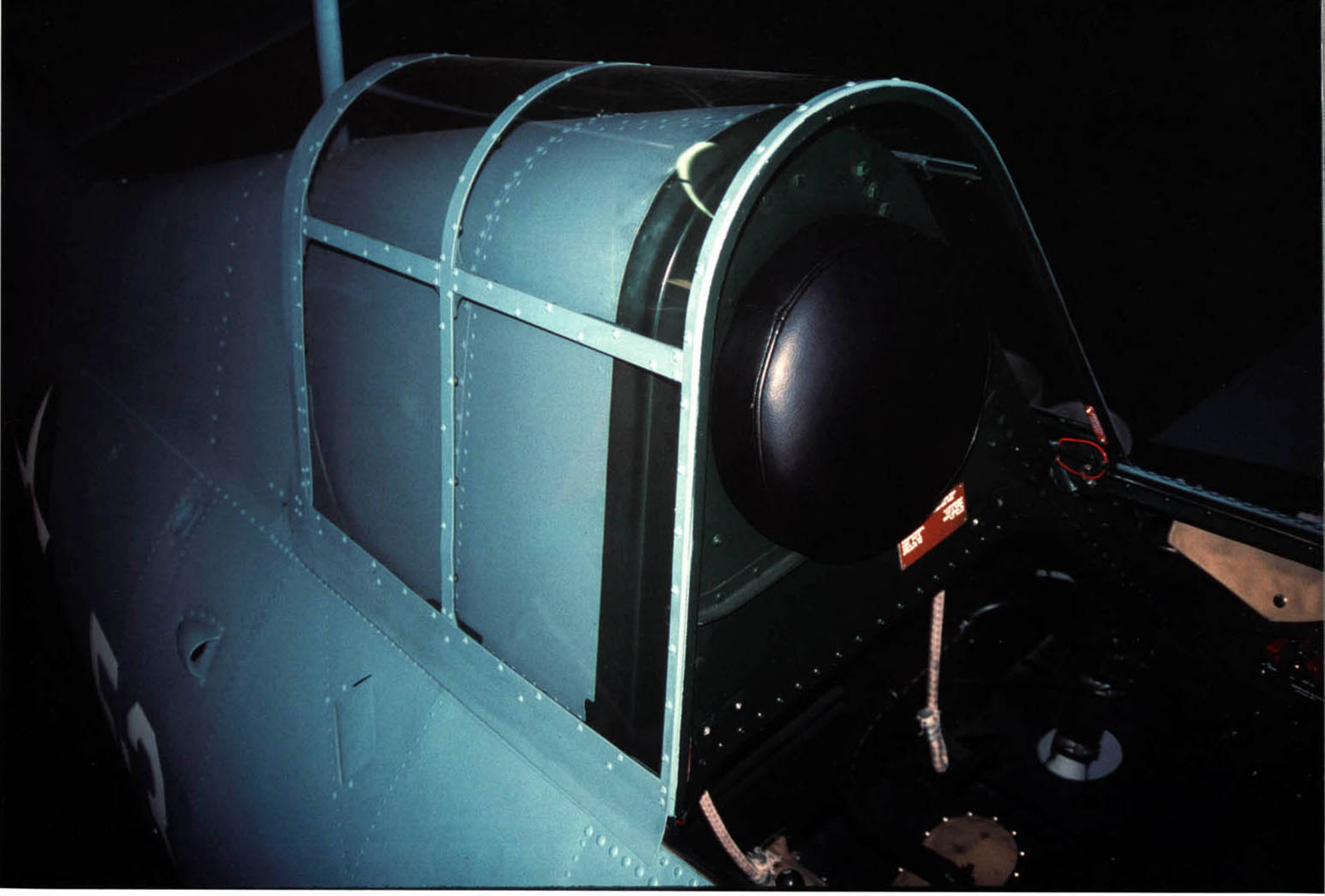
(Right) The cockpit floor of the F4F-3 was painted Zinc Chromate Green. The two runners are the rudder kick plates, the rudder pedals are at the top on either side of the RMI center column. The control stick has a Black grip with a trigger for the guns. The two circular objects at the lower right are the shackles for the pilot's oxygen bottle. The crank handle at the upper right is the cowl flap control crank. The three T shaped handles on either side of the floor are gun charging handles for the Wildcat's .50 caliber machine guns. Just below the control stick is the main fuel tank. Also visible is the throttle quadrant (upper left). (Grumman)



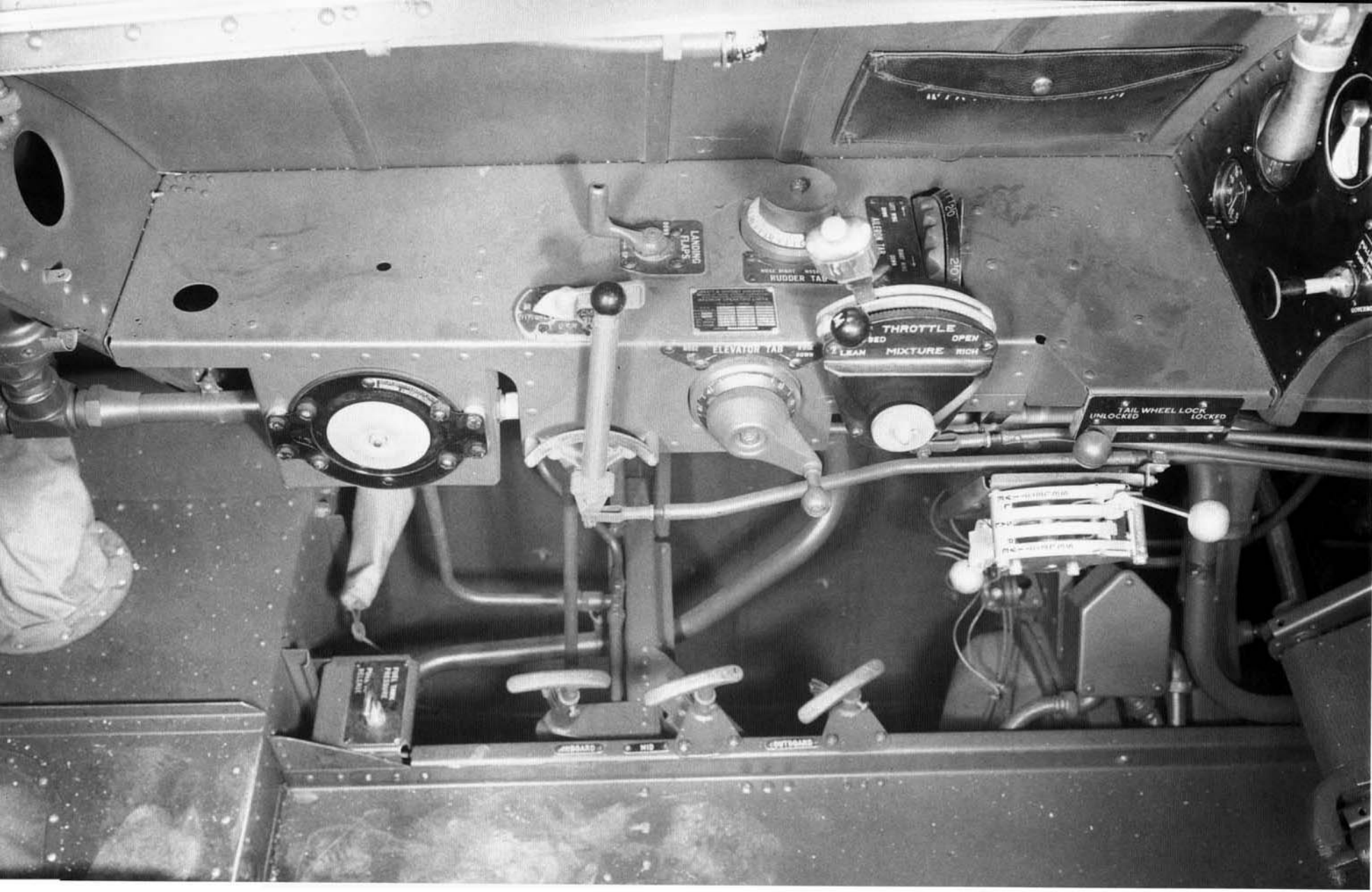


The windscreen was made up of four panels with the front panel being made of bullet resistant Plexiglas. This F4F-3 has been fitted with a gun camera mounted alongside the reflector gunsight. The instrument panel hood was painted in Flat Black to help reduce glare. (Lou Drendel)

(Left) The seat has been removed from this F4F-3 revealing the mounting for the pilot's oxygen bottle, fuel lines, and rudder kick plates. (Lou Drendel)



The F4F Wildcat series was equipped with a rear sliding six panel Plexiglas cockpit canopy that could be jettisoned in flight in the event of an emergency. The canopy slid rearward on tracks located on either side of the fuselage. The pilot's headrest was made of leather. The small scoop on the fuselage was an intake for cooling air for electronics within the fuselage. (Lou Drendel)

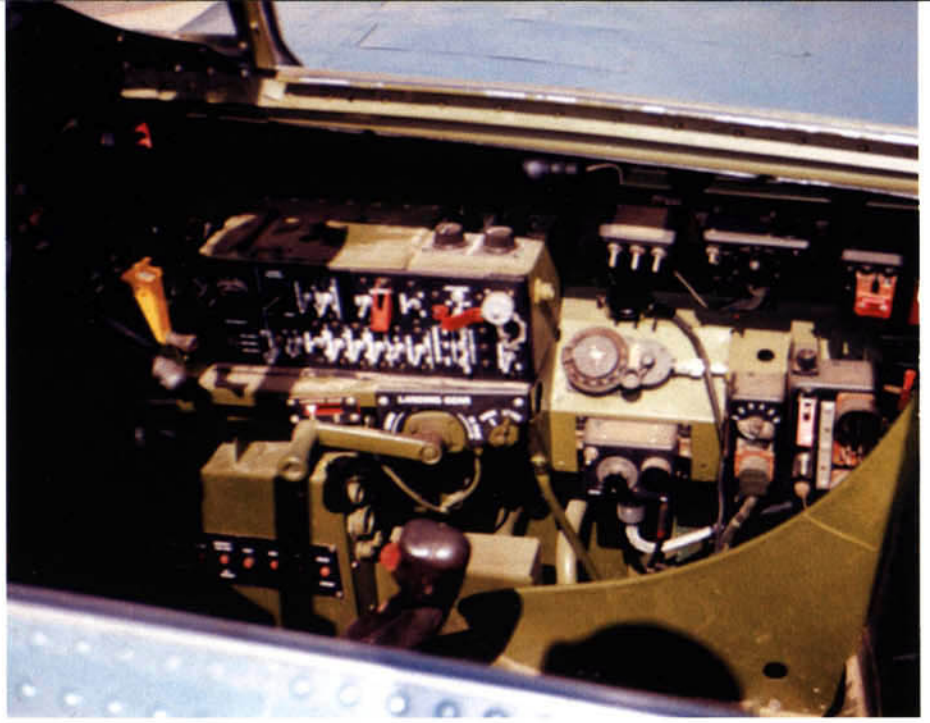


This is the port side console of a F4F-3. The throttle quadrant is the wedge shaped object and contains handles for the throttle and mixture controls. The large handle just behind the quadrant is the supercharger control (which is absent on the F4F-3A), while the small crank above it is the flap control. The elevator trim tab control is located in the center. The three T shaped handles are gun chargers. The pouch on the fuselage sidewall is the aircraft's documents case. The rudder trim control is the small wheel located behind the throttle quadrant. Behind the supercharger control handle is the fuel tank selector switch. (Grumman)

This is the starboard console of a F4F-3 Wildcat. The landing gear retraction handle and position indicator are just in front of the pilot's seat. It took twenty-eight turns of the handle to raise or lower the landing gear. Just above the handle is the main electrical panel and the armament panel. The radio panel is in the center, the round wheel is the radio tuner. The square box (center, left) is the transmitter control box, the one next to it is the receiver control box. The two round selectors at the right are low and high frequency selector switches for the ADF panel. Above the ADF panel is the color coded storage box for signal flares. The seat belt is the older style belts, known as the 1930's style belt. (Grumman)

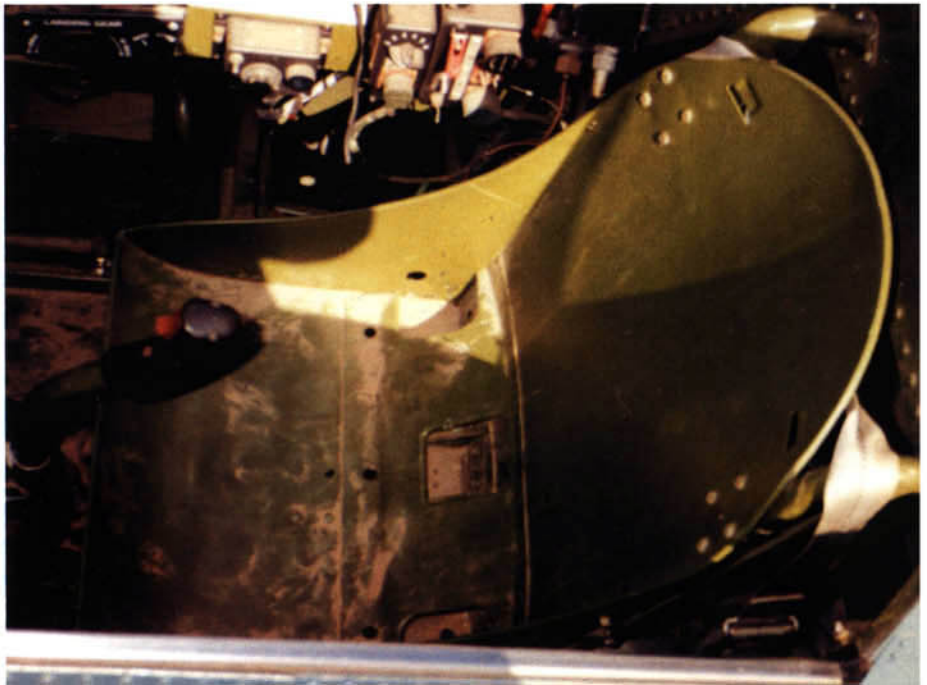
The cockpit of the F4F-3 was painted in Zinc Chromate with a Black instrument panel and side console. The Yellow handle is the cowl flap control The exterior color is Blue Gray on the uppersurfaces over Light Gray undersurfaces. (Author)

The left console houses the trim wheels (in Light Green), flap controls, supercharger control and throttle quadrant The stick has a Black grip with a Red gun trigger. (Author)



The right console contains the electrical panel, radio panel, ADF panel and landing gear retraction handle and position indicator. (Author)

The pilot's seat was painted in Zinc Chromate. Normally a Wildcat pilot would use a seat type parachute, which would serve as a seat cushion. The shoulder harness fit through the slots in the back of the seat. (Author)

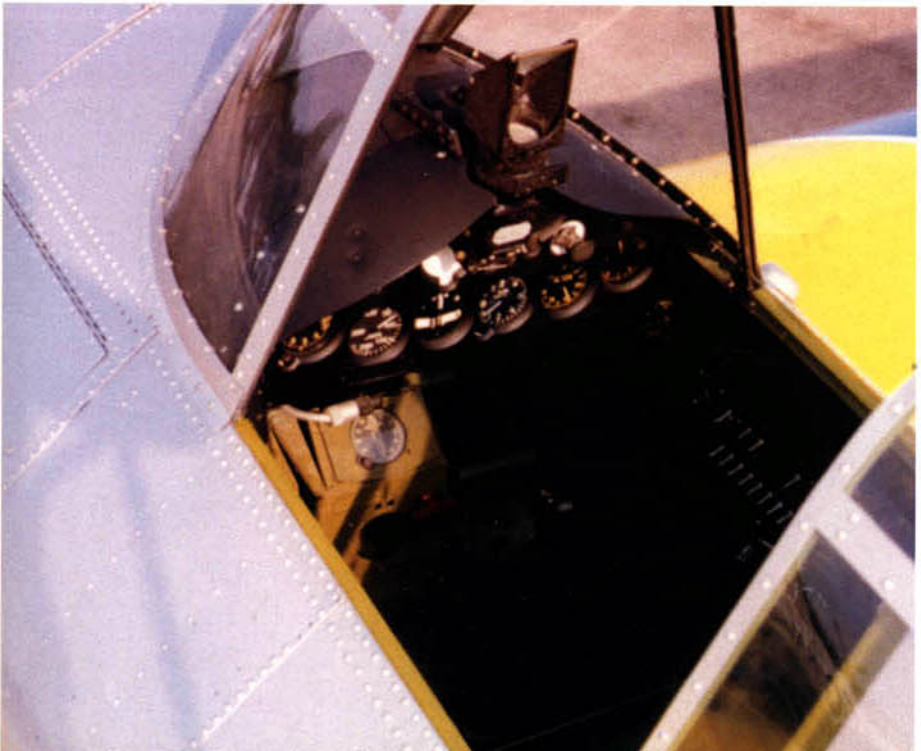


The reflector gun sight almost took up the entire windscreen. The instruments on either side of the sight are the directional gyro (left) and turn and bank indicator (right). The compass is located just under the sight. (Author)

The windscreen in front of the reflector sight is made of bullet resistant Plexiglas and is much thicker than the other windscreen panels. The sight has a padded area just under the glass which was designed to protect the pilot from head injury in the event of a forced landing. (Author)

The instrument panel coming on the National Museum of Naval Aviation's F4F-3 is painted Flat Black to help reduce glare. This aircraft has a different style reflector sight than the El Toro F4F-3. (National Museum of Naval Aviation)

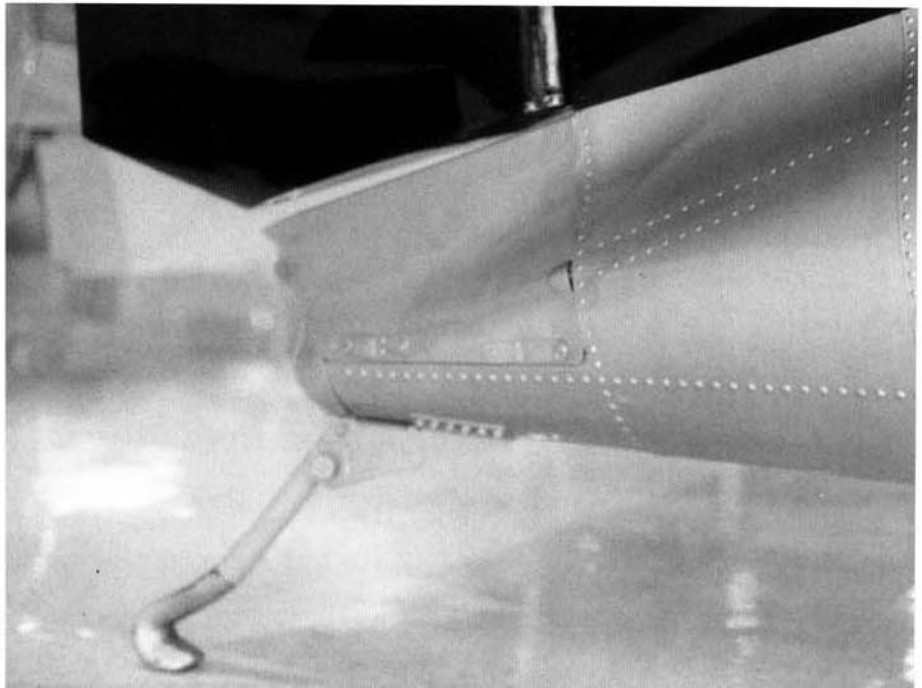
Just behind the rearward sliding canopy is a streamlined antenna mast for the aircraft's radios. Wildcats carried both UHF and VHF radios, an Automatic Direction Finder and a Identification Friend or Foe (IFF) system. (Author).



The canopy enclosure of the F4F-3 opened rearward on tracks on either side of the fuselage. The canopy consisted of a single curved Plexiglas panel reinforced with metal framing. When fully open, the canopy almost reached the streamlined radio antenna mast on the fuselage spine. This F4F-3 at the National Museum of Naval Aviation carries pre-war colors. The fuselage is sprayed Aluminum lacquer, the wings were Yellow and the wing walks were Black. It carried the squadron insignia of VF-7 from USS RANGER (CV-7) on the fuselage below the cockpit. The small hole behind the antenna mast is the pull ring for opening the raft storage compartment. (Sam Davis)

The door located within the Blue fuselage band on the National Museum of Naval Aviation's F4F-3 is the aircraft baggage compartment. Just to the right of the band is one of the aircraft push in foot holds. (Sam Davis)

There is a small clear navigation light mounted just above the arresting hook. External stiffeners are located on either side of the fuselage just above the rear tow lug (Sam, Davis)



The F4F-3 arresting hook retracted into a slot under the tail. The hook rested against the rear fuselage towing lug when down. The rear navigation light is just above the arresting hook opening. (Sam Davis)

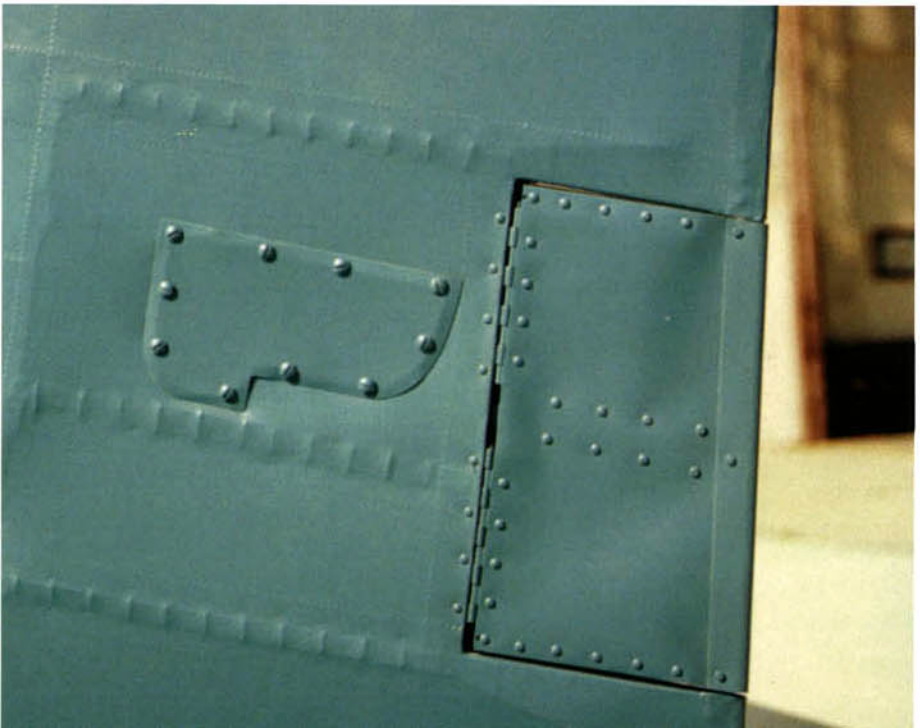
Antenna wires ran from the top of the vertical fin to the streamlined antenna mast on the fuselage spine. Other leads ran from the antenna mast to small antenna lead-in posts on the fuselage sides. (Author)

There are two elevator hinges on each horizontal stabilizer and two rudder hinges on the vertical fin. There were trim tabs on each elevator and on the rudder. The small Black markings on the fin read "MARINES" with the BuNo below it (18634) while the aircraft type (F4F-3) was carried on the rudder. The BuNo painted on the fin is not the original. (Author)

The elevator trim tab was controlled by a push/pull actuator rod which had its own aerodynamic fairing. Just above the fairing is an oval shaped inspection plate. (Author)

The rudder trim tab has an actuator rod on the opposite side of the rudder. The plate just behind the trim tab is an inspection plate. (Author)

The tailwheel on the El Toro F4F-3 Wildcat is a solid rubber type normally used for duty aboard carriers. When based ashore, the Wildcat would be fitted with a balloon type tire. The tail wheel was of the fully castoring type. Normally the tail wheel assembly is covered by a fairing. (Author)

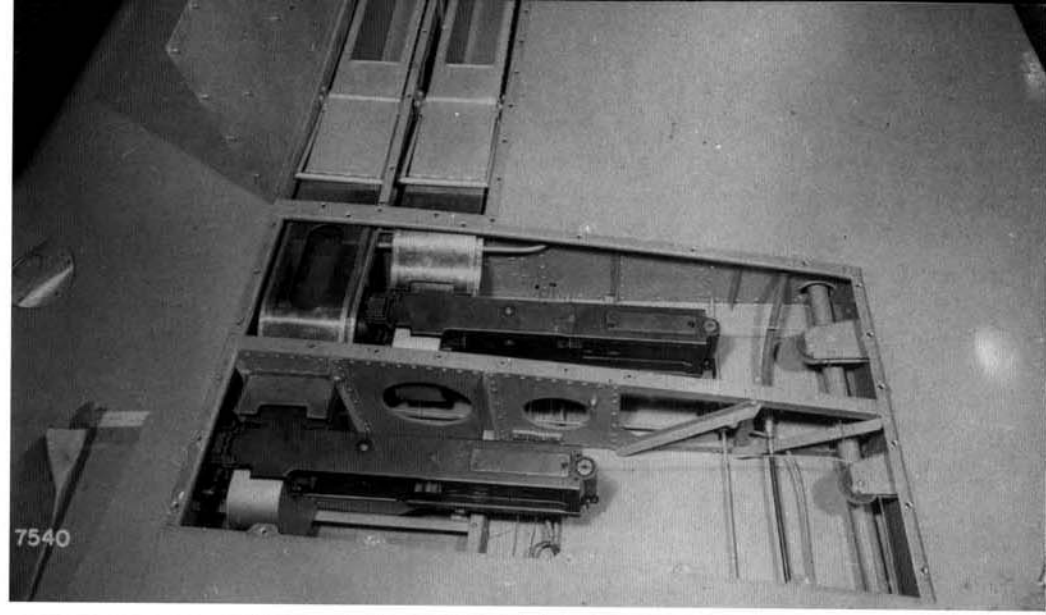


The F4F Wildcat carried a one man life raft in a compartment behind the cockpit which was deployed manually by the pilot. The compartment door is open on the F4F-3 of the NMNA during its restoration. (National Museum of Naval Aviation)

There are two types of tail wheels used on the F4F Wildcat, one for land base use (balloon tire) and one for carrier use (solid rubber). The tail wheel used on the F4F-3 at the National Museum of Naval Aviation is the type used for carrier operations. (Sam Davis)

Grumman test pilot Corky Meyer demonstrates the deployment of the one man life raft from its storage compartment on this Wildcat on 19 November 1942. The small air scoop on the fuselage side just ahead of the raft compartment was an avionics cooling scoop. (Grumman)

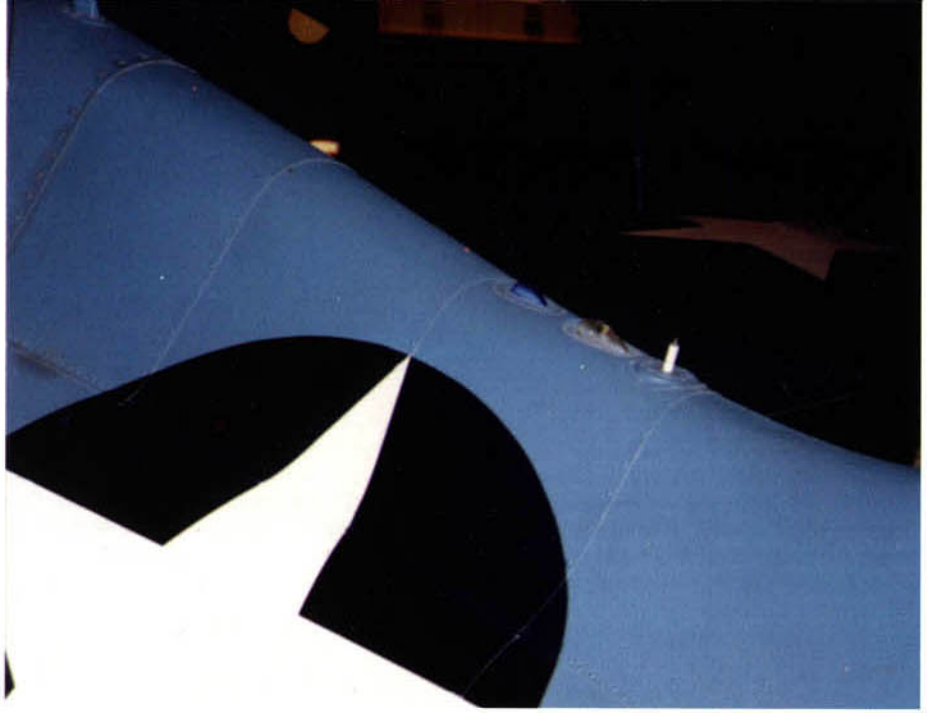
(Right) The ammunition and gun bays of a F4F-3 Wildcat. The F4F-3 was armed with two .50 caliber Browning machine guns in each wing with the inboard gun being slightly ahead of the outboard weapon. Access to the guns and ammunition canisters was made through access panels on top of the wing. The gun bays were heated from vented engine exhaust and were manually charged by handles in the cockpit. The interior of the gun bays was Zinc Chromate Green. (Grumman)



An early production F4F-3 in the Grumman hangar at Bethpage, New York undergoes flotation bag tests. The Wildcat carried two flotation bags in the wings to keep the aircraft afloat in the event of a water landing in hopes that it could be salvaged. Both the flotation bags on this Wildcat are fully inflated. The bags led to at least two accidents, where they inflated in flight and, as a result, they were removed from later variants of the Wildcat. The aircraft in the background are a G-32A and a Widgeon. (Grumman)

The rear fuselage towing lug also serves as a stop for the arresting hook when it is fully deployed. The hole above the towing lug is an access port. (Author)

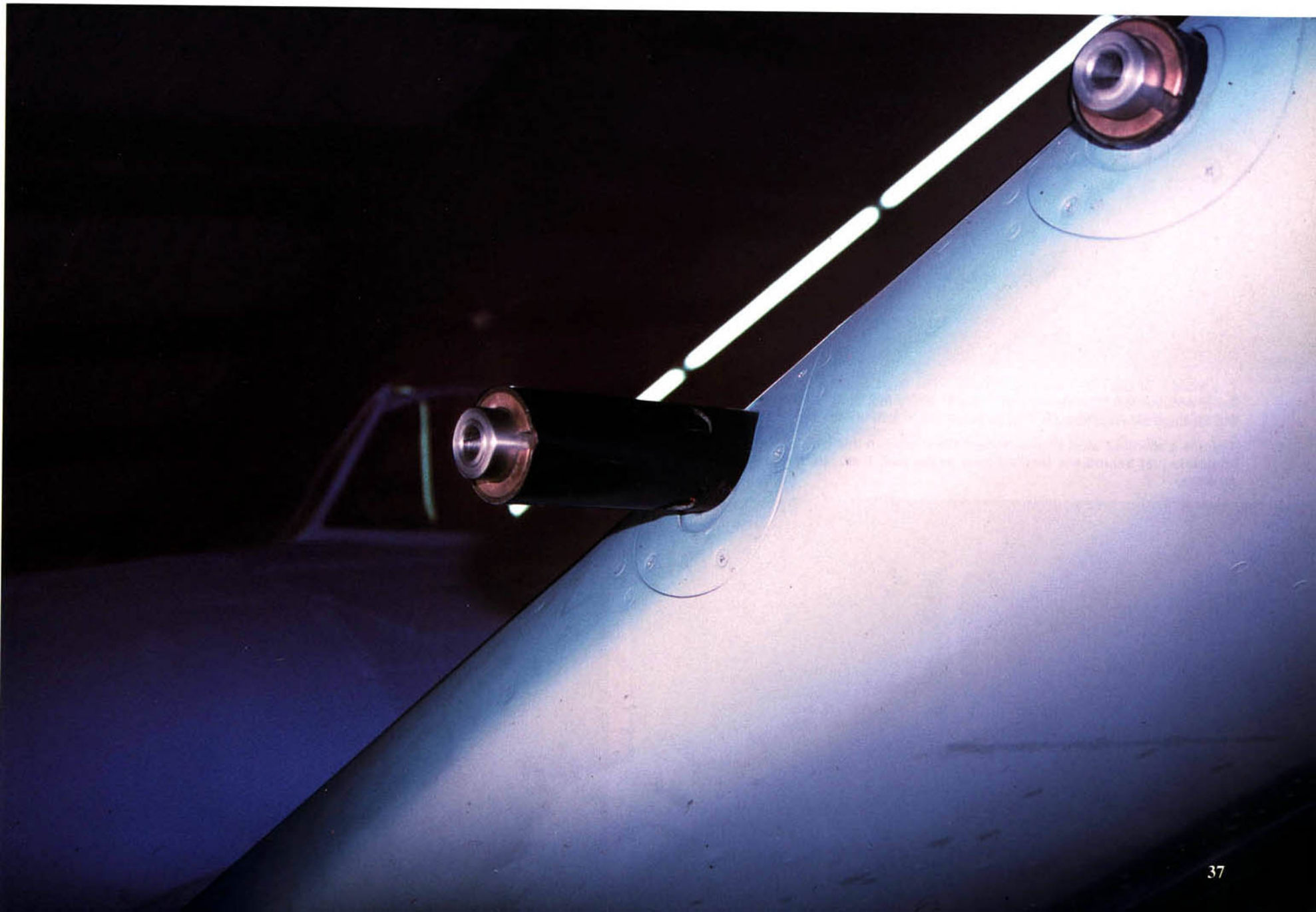
This is the gun camera window in the port wing of the El Toro F4F-3. (Author)

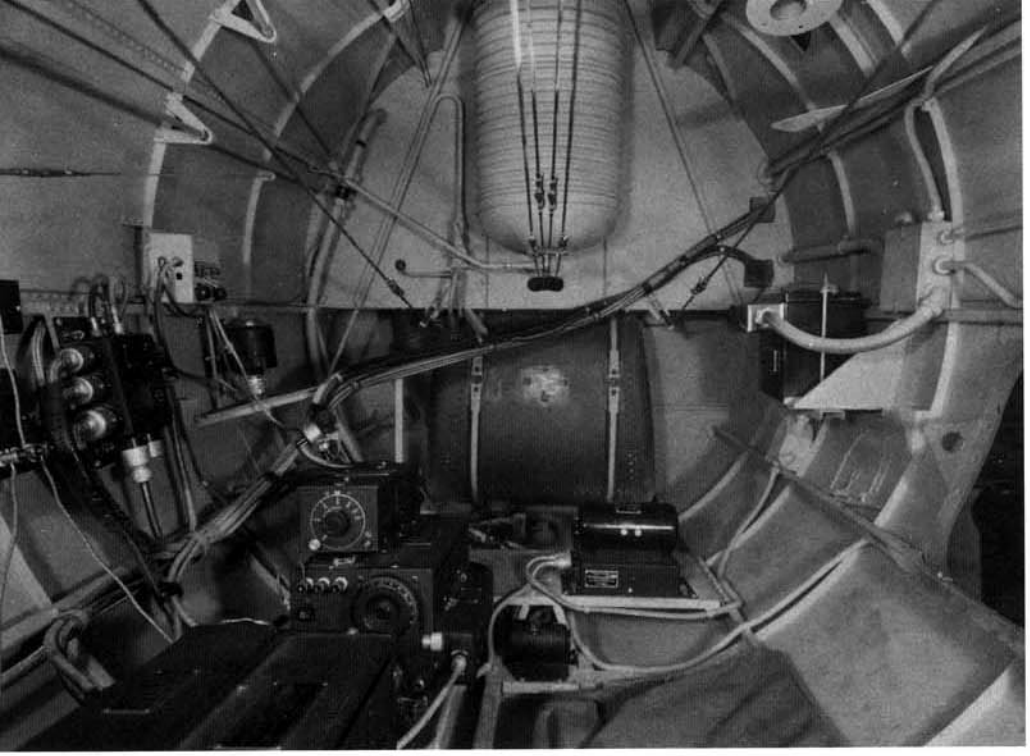


There are two lights and an antenna mount on the dorsal spine of the F4F-3. The forward light is a Blue formation light, while the rear light has a clear lens. (Lieutenant Brown Ryle)

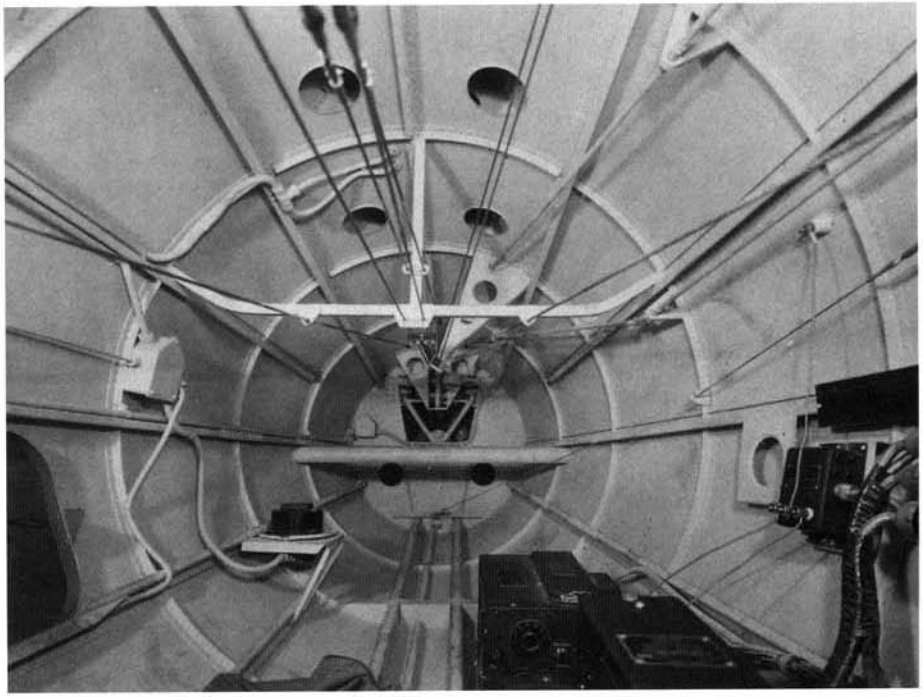
There are two lights on each wing tip, one is the standard port/starboard light and the other is a Blue formation light. The Red light is the port wing tip light. The starboard wing tip has a Green light. (Author)

The two Browning .50 caliber machine guns mounted in the wings of the F4F-3 were equipped with blast tubes that extended out past the leading edge of the wing. The inboard gun on both sides was further out and slightly higher than the outboard gun. This was done to allow the guns to align with their respective ammunition boxes. Besides the internal guns, the F4F-3 also had provision for carrying a 100 pound bomb under each wing. (Lou Drendel)





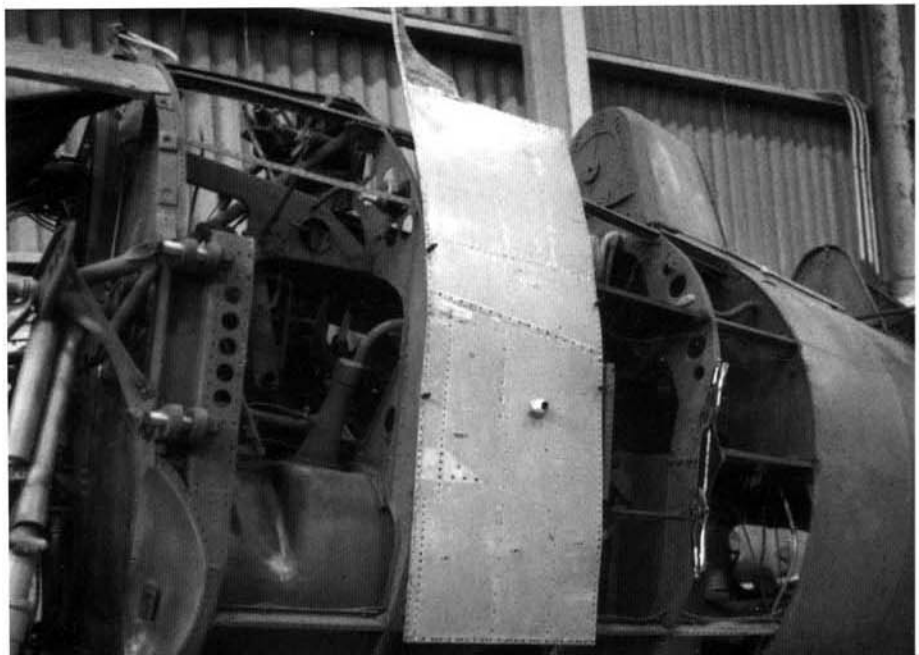
The interior of the F4F-3 looking forward. The large cylinder at top center is the pneumatic accumulator, just below that is the auxiliary fuel tank. Radio gear takes up part of the fuselage side and there is a large inspection hatch at the right. (Grumman)



The interior of the F4F-3 looking rearward. Radio gear is on the fuselage side at the right. The tube at the rear of the fuselage is the carry-through for the tail lift point. Trim and flight control cables are visible at the top. (Grumman)

There is a stainless steel firewall behind the engine on this F4F-3. The main fuel bladder is visible just behind the landing gear wheel well area. (National Museum of Naval Aviation)

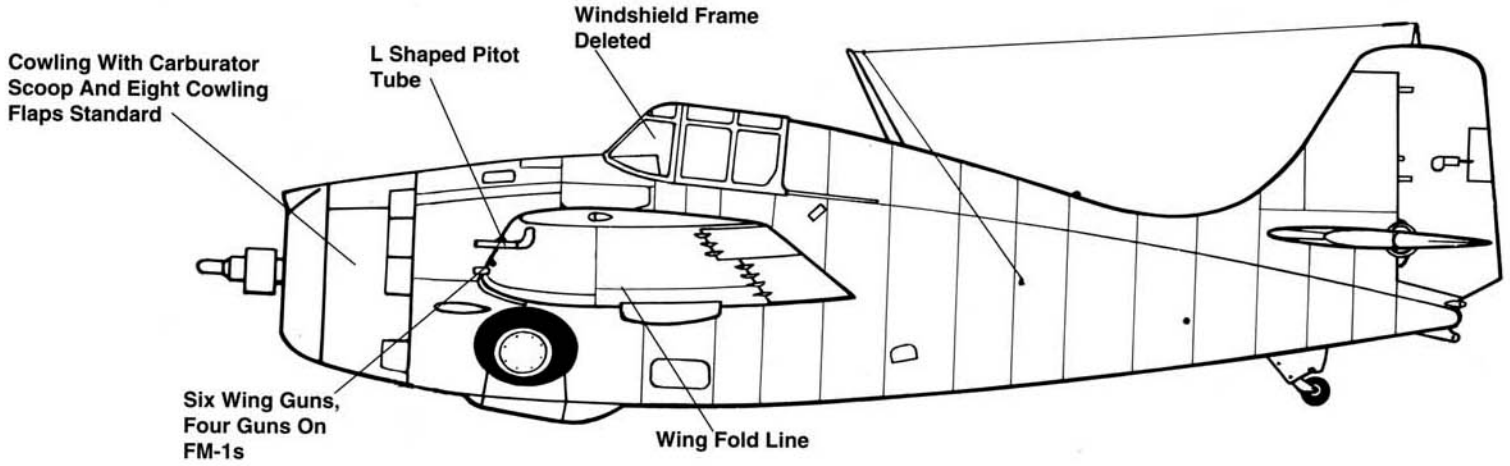
The skin has been partially removed from this F4F-3. The main fuel tank and filler neck are visible. This illustrates the Grumman technique of using flat aluminum sheet to construct the aircraft skin. (National Museum of Naval Aviation)



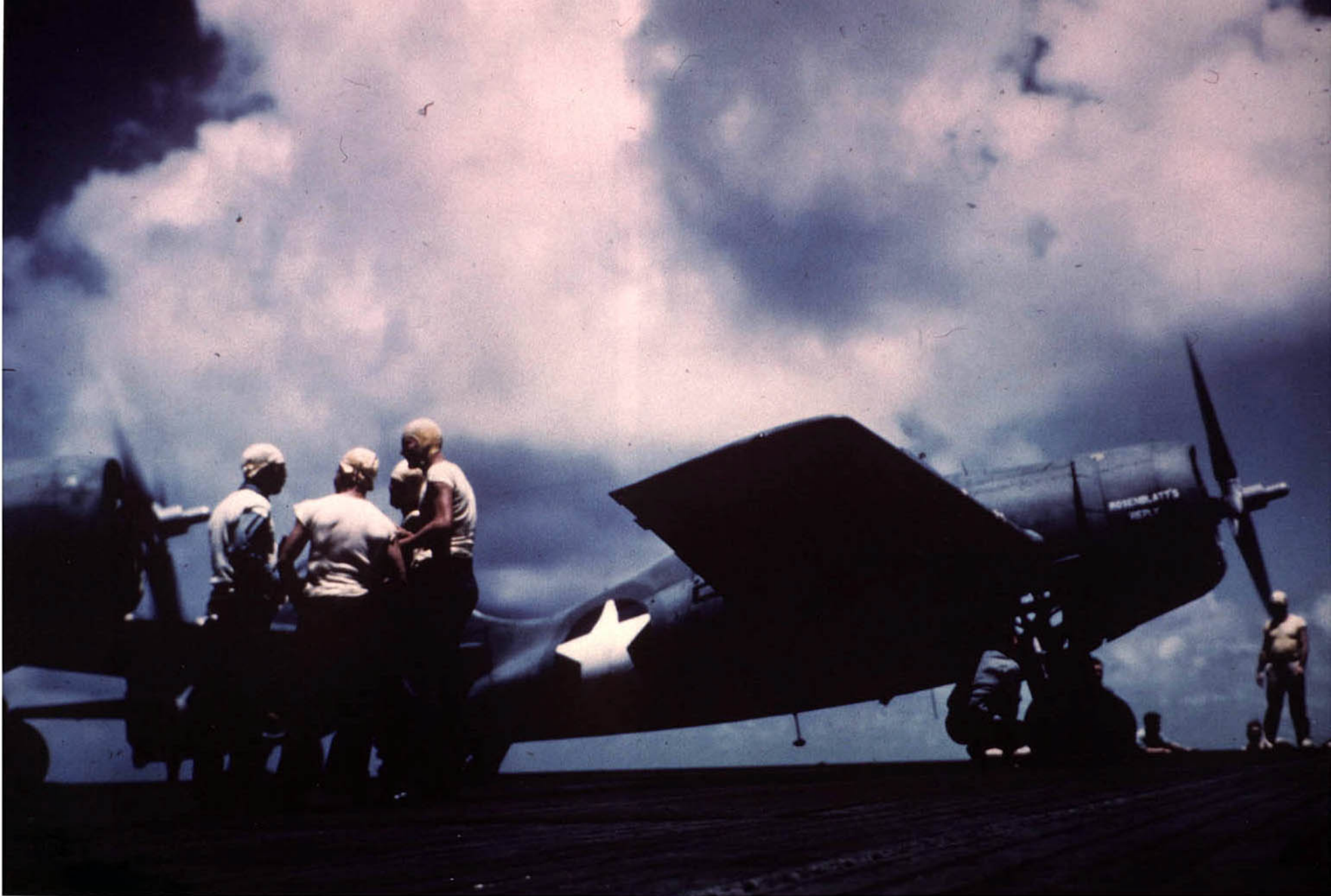
A F4F-4 (BuNo 02045) on the grass at the Grumman, Bethpage facility. The aircraft has had the reflector gun sight removed, but retains the auxiliary ring and bead sight. No guns are visible in the wing, possibly having been censored . (Grumman)

Although similar in appearance to the earlier F4F-3, the F4F-4 had one major difference, it had folding wings. Additionally, the F4F-4 had six .50 caliber machine guns instead of the four installed in the F4F-3. (Grumman)

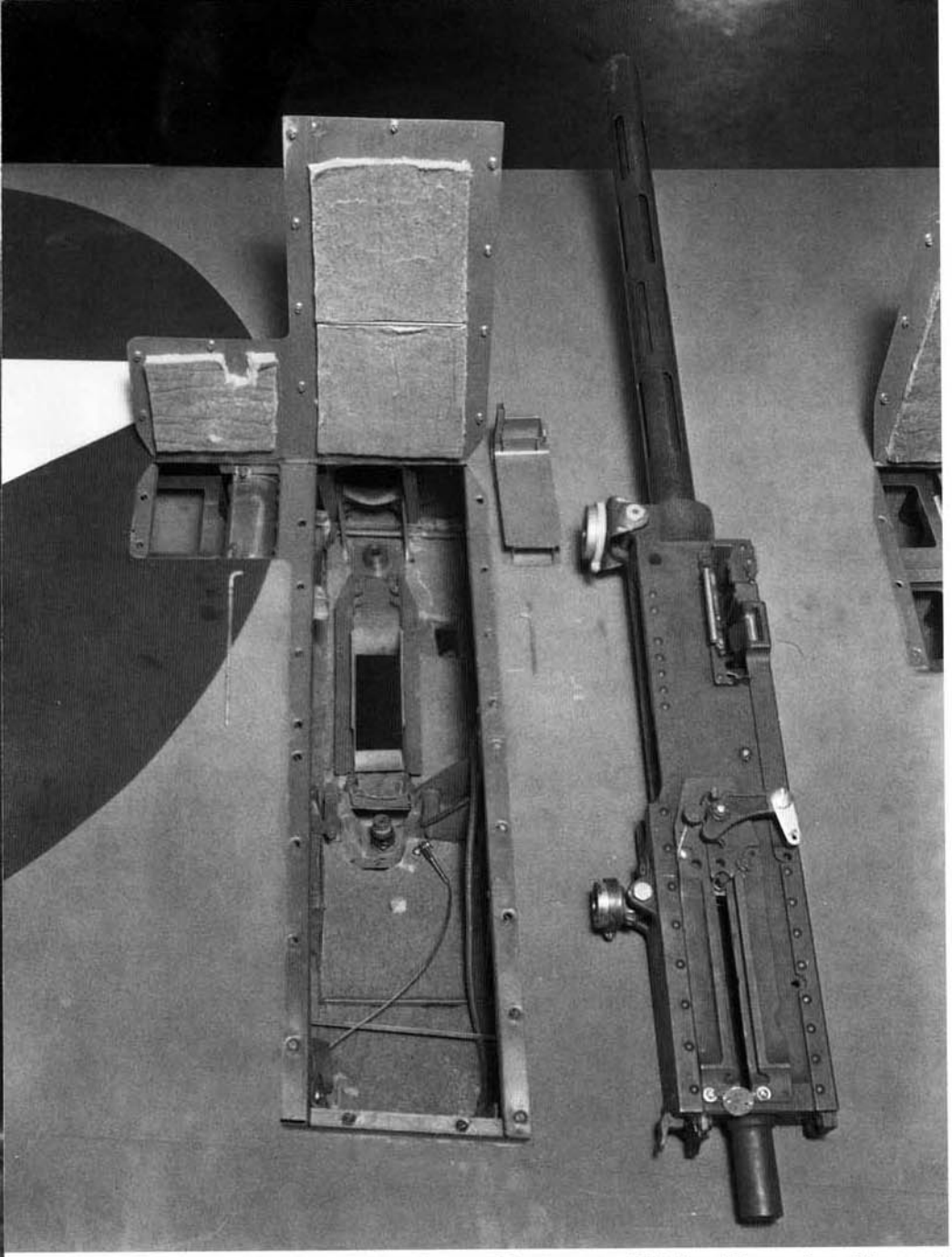
Identification Features F4F-4/FM-1 Wildcat


Windshield Frame Deleted
L Shaped Pitot Tube
Cowling With Carburator Scoop And Eight Cowling Flaps Standard
Six Wing Guns, Four Guns On FM-1s
Wing Fold Line

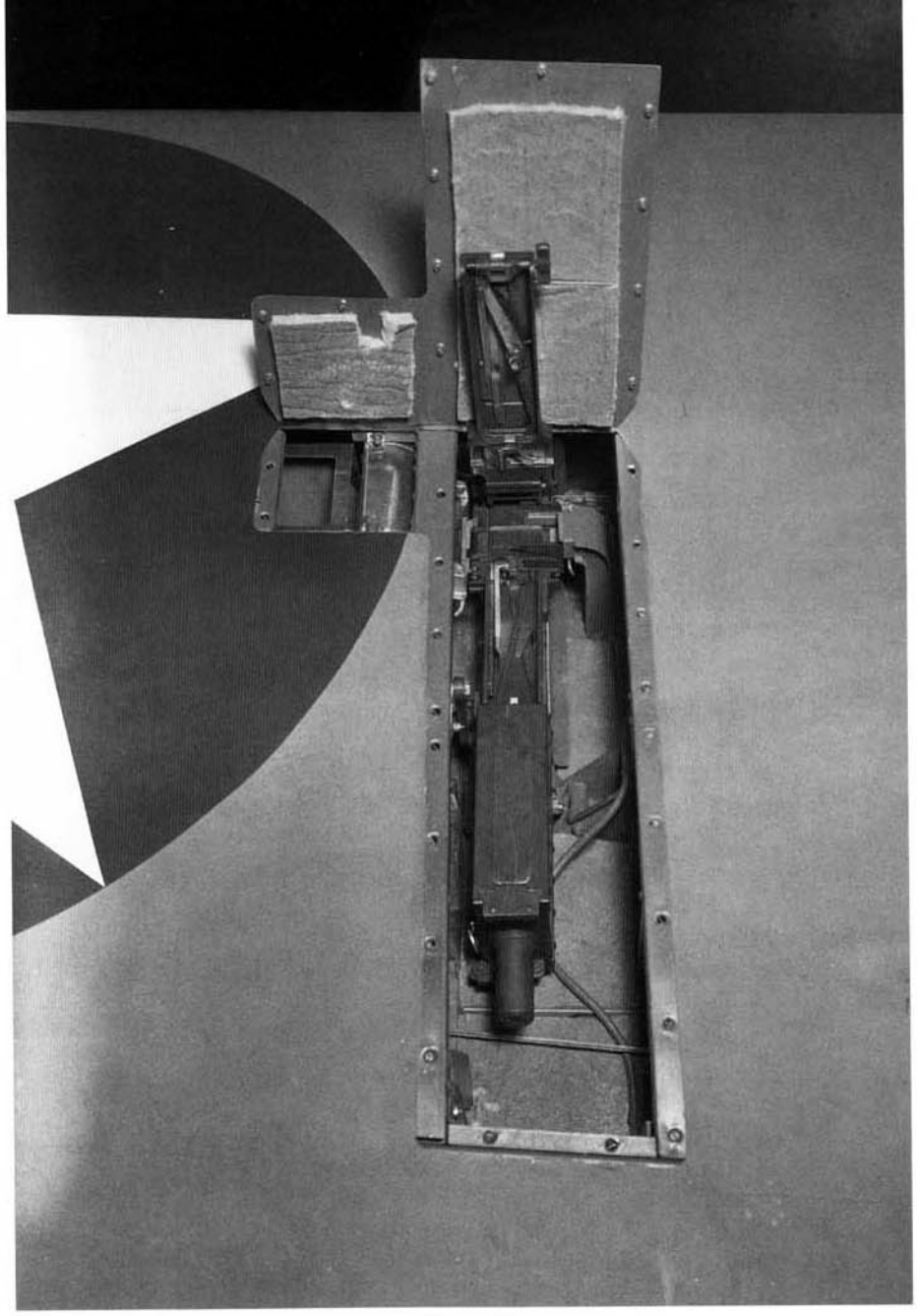
This F4F-4 Wildcat carries the early style national insignia that included a Red center to the White star marking and Red/White rudder stripes. The Red center and rudder stripes were deleted shortly after the U.S. entered the Second World War. (NASM via Jim Sullivan)



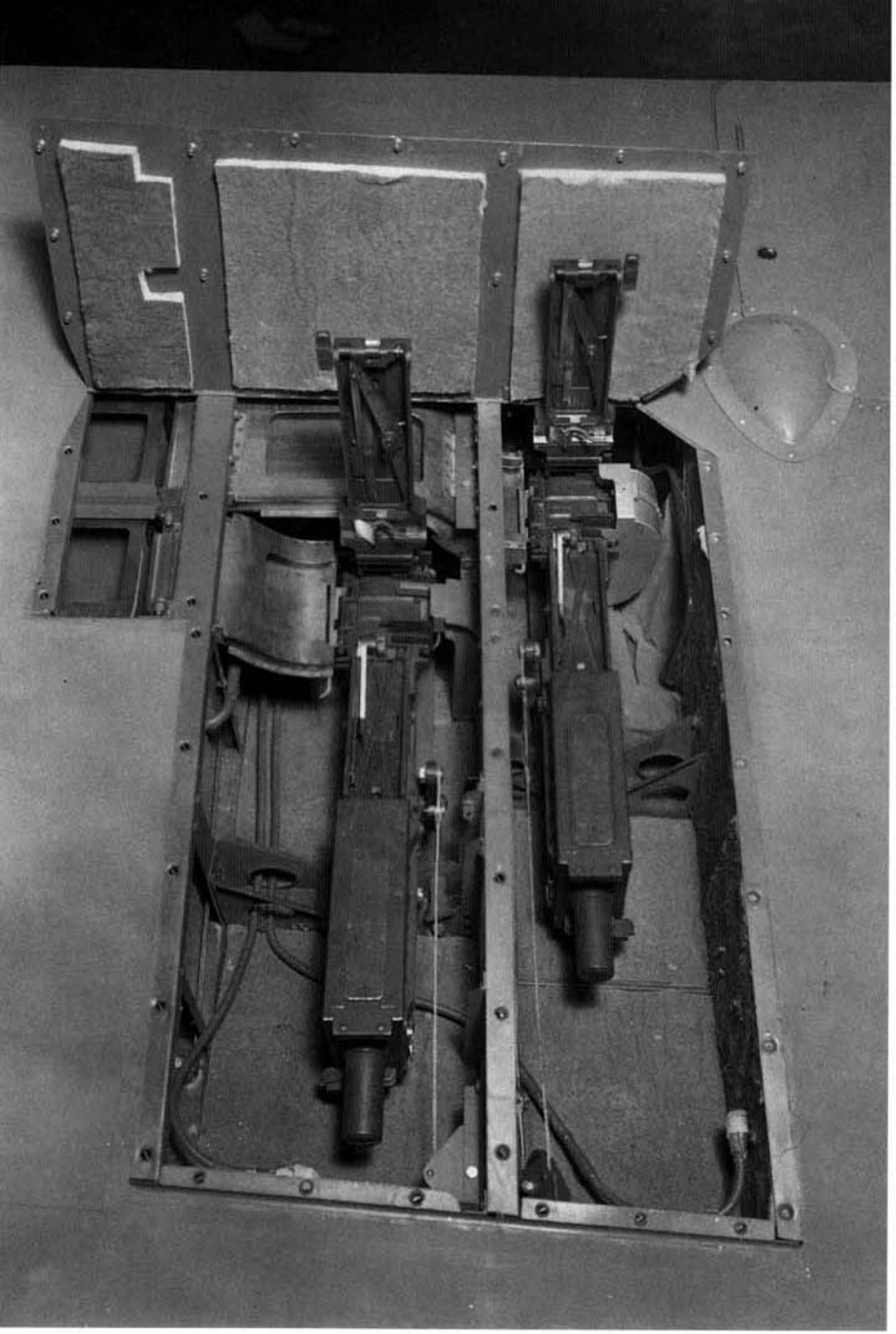
F4F-4s prepare to launch from an aircraft carrier in the Pacific. The F4F-4 was the Navy's primary fighter during the early part of the Pacific war and participated in all the major campaigns of 1942/43. The aircraft has had the Yellow insignia surround painted out. (NASM via Jim Sullivan)



This is the port outboard .50 caliber machine gun on a F4F-4 and its gun bay. The spent shell chute and link chute are visible in the open bay. The weapon was a Browning M2 .50 caliber air cooled aviation machine gun. (Grumman)



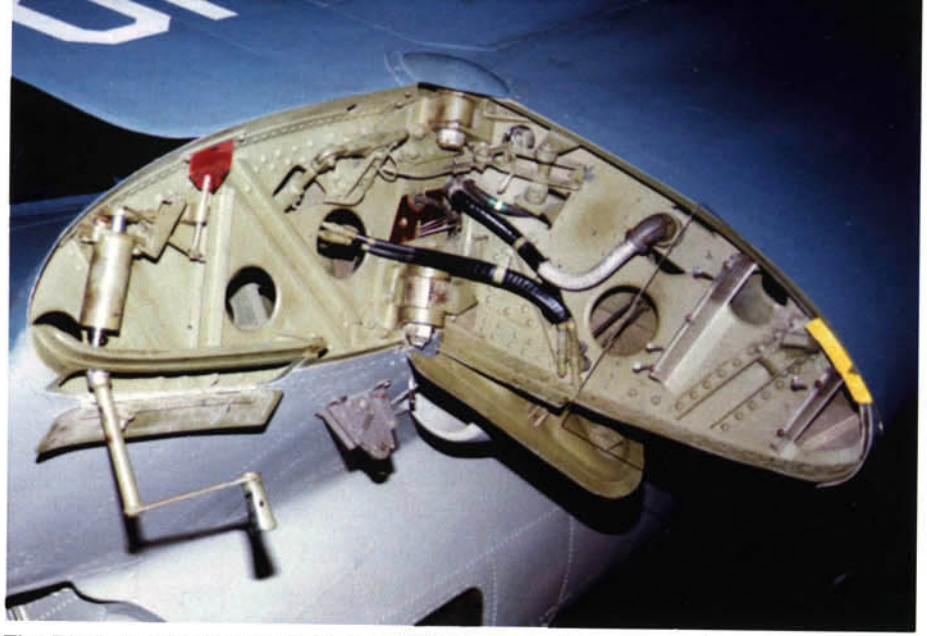
The outboard port gun in its gun bay. The F4F-4 carried six such machine guns and up to 240 rounds of ammunition per gun. The gun breech is in the open position. The small access panel reveals the ammunition can and feed chute. The access panels are lined with a fire resistant material (Grumman)



The inboard gun bay on the F4F-4 held two .50 caliber machine guns in a staggered arrangement to allow for proper alignment with their ammunition feed chutes. The gun bays on the Wildcat were heated with bleed air from the engine exhaust. With the guns removed (above) the spent shell and link ejection chutes are visible in the bay. The wing fold joint is visible to the right of the gun bay. Unlike the earlier F4F-3, the guns on the F4F-4 did not have blast tubes that extended beyond the wing leading edge. The guns were manually charged by handles in the cockpit. One drawback of the six gun arrangement on the Wildcat was that it carried less ammunition than the earlier F4F-3. As a result, many pilots preferred the earlier variant. (Grumman)

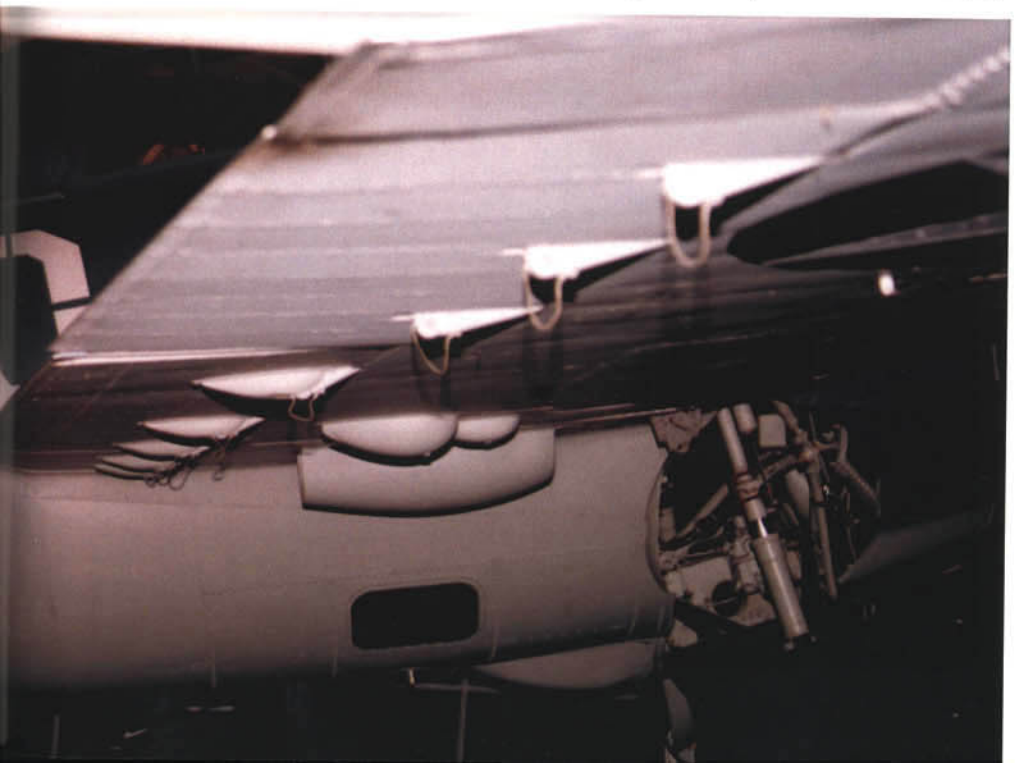
The FM-2 Wildcat was built by the Eastern Aircraft division of the General Motors Corporation. It differed from the F4F-4 in that it was armed with four instead of six .50 caliber machine guns. The FM-2, like the earlier FM-1, had the outboard gun deleted and the ammunition load was increased to answer service pilots complaints about the shortage of ammunition in the F4F-4. This FM-2 carries the Atlantic Anti-Submarine Warfare color scheme of Non-specular Dark Gull Gray over Non-specular Insignia White. The aircraft numbers were in Non-specular Black. (NASM via Jim Sullivan)

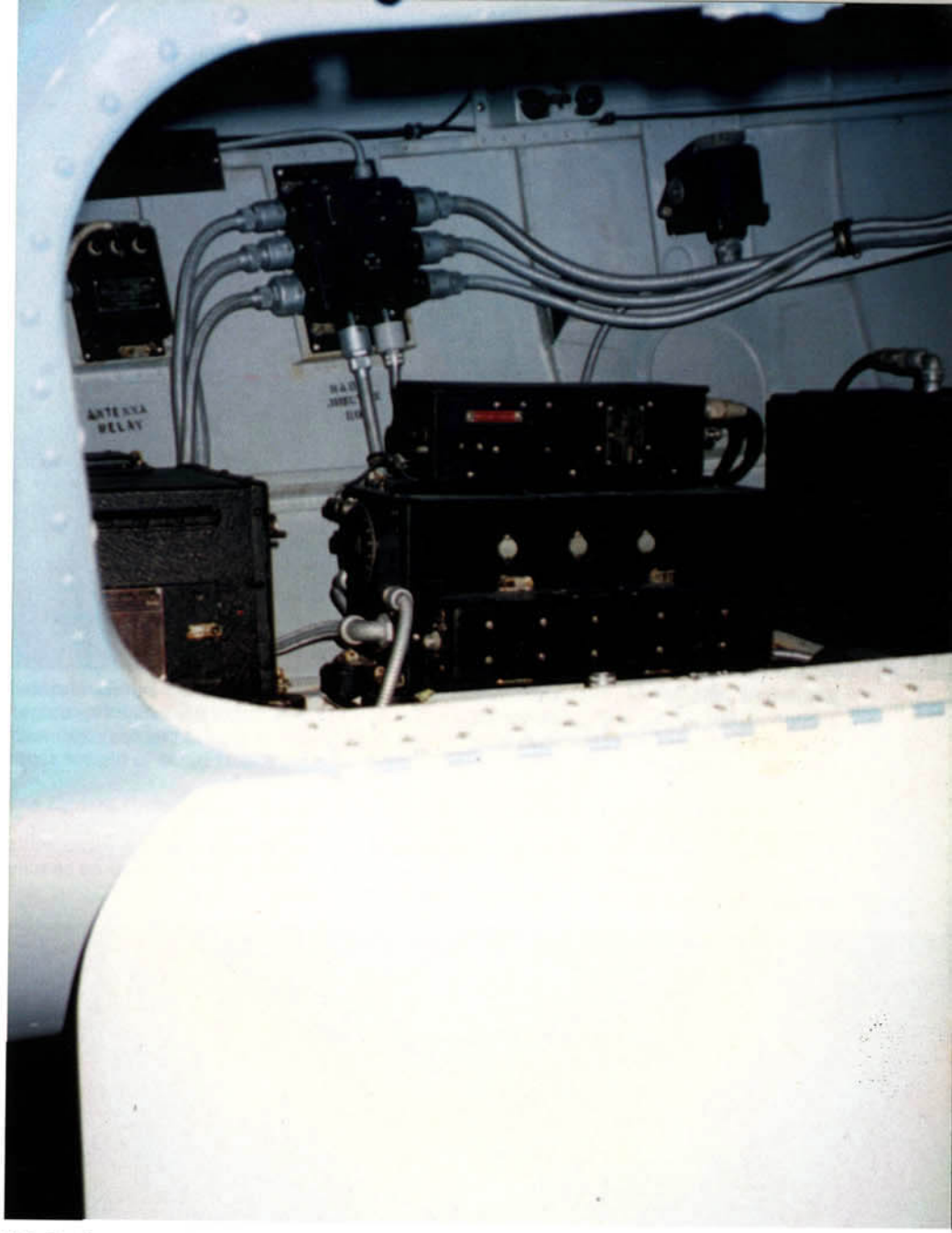
The FM-2 was a light weight variant of the Wildcat built by the Eastern Aircraft Division of General Motors. It had a taller vertical fin and rudder, first tested on the second XF4F-8, four wing guns, and a Wright R-1820 engine. (Author)



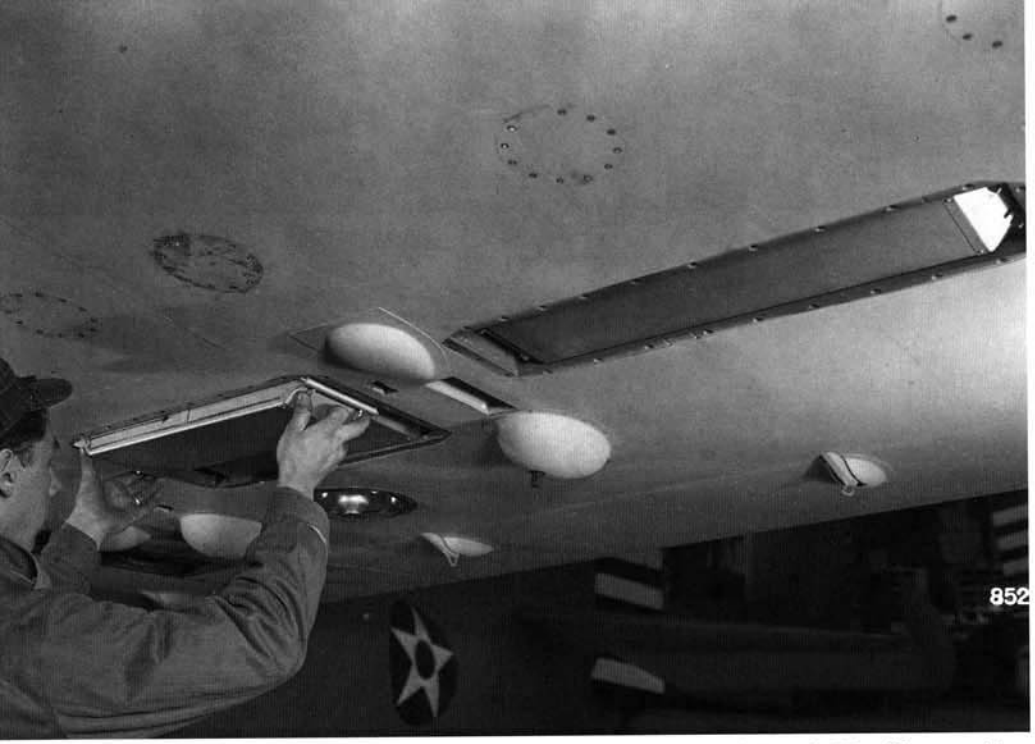
The F4F-4 had folding wings to allow for improved storage on carriers. The wing fold lock handle is used to lock and unlock the wing for manual folding. The Black hose is the air speed tube and the other flexible line is the flap control line. (Lieutenant Brown Ryle)

The bulges under the wing of this F4F-4 cover the wing fold hinge points. The fairings on the training edge of the wing are flap and aileron hinge covers. (Lietuentant Brown Ryle)



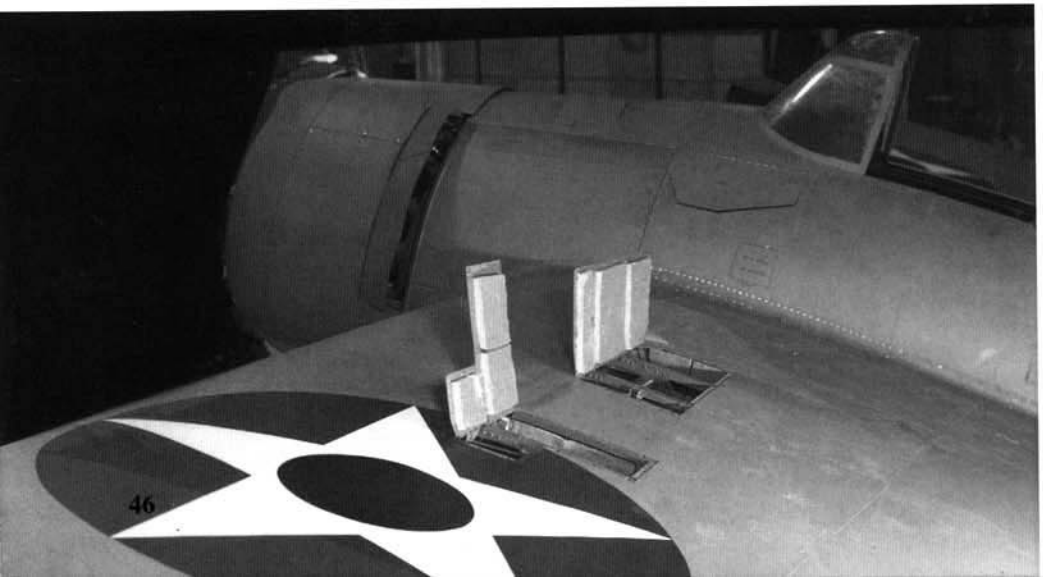


This is the open baggage/radio compartment in the lower fuselage of an F4F-4. An antenna relay box is visible at the left, and a radio junction box is visible on the fuselage side center. (Lieutenant Brown Ryle)



A Grumman worker removes the ammunition can from the inboard .50 caliber machine gun on a F4F-4. The ammunition cans were removed from below the wing. The bulges cover the gun mounts. The retractable landing light is visible behind the open ammunition bay. (Grumman)

Access to the three .50 caliber machine guns was made from above the wing, while access to their ammunition cans was made from below the wing. The guns could be fully exposed for servicing from these access panels. (Grumman)

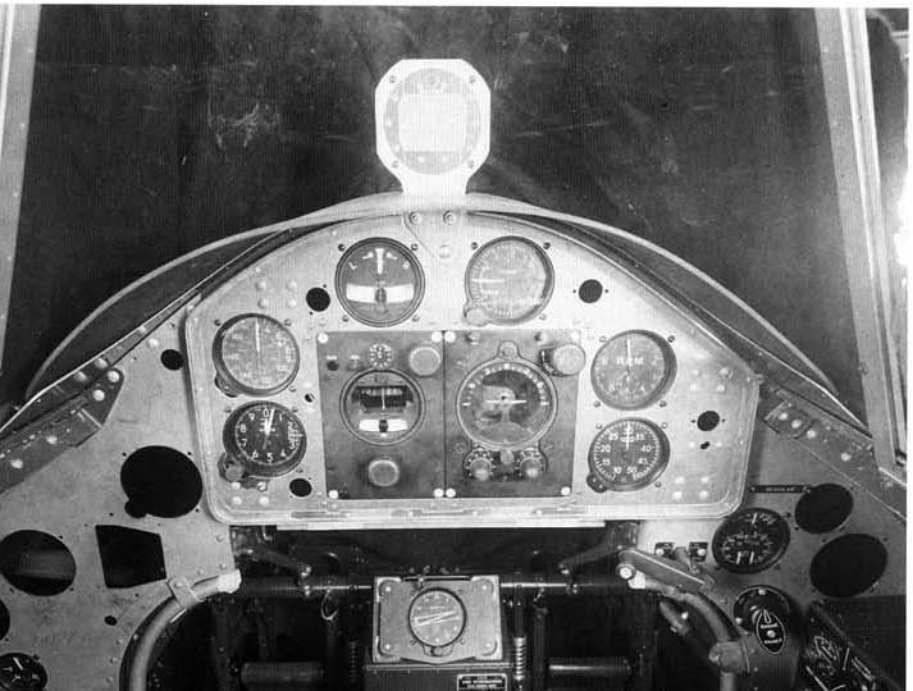


Navy ordnancemen boresight the guns on a F4F-4 aboard USS ENTERPRISE (CV-6) during early 1942. The aircraft has a cover over the Red/White rudder stripes to hide them. (USN via D. Lucabaugh)

This F4F-4 is having its guns tested at sea. The Yellow surround to the national insignia indicates that this Wildcat was assigned to one of the units taking part in Operation TORCH, the invasion of North Africa. It was probably aboard USS RANGER (CV-4). (USN)

The F4F-7 was intended to be a photographic reconnaissance variant of the Wildcat. The aircraft had a non-folding, sealed wing that served as a fuel tank. A few F4F-7s were deployed operationally seeing action at Guadalcanal. (Grumman)

The instrument panel on the F4F-7 was set up differently than on other F4Fs. The primary flight instruments were the Directional Gyro and attitude indicator (center). Grumman)



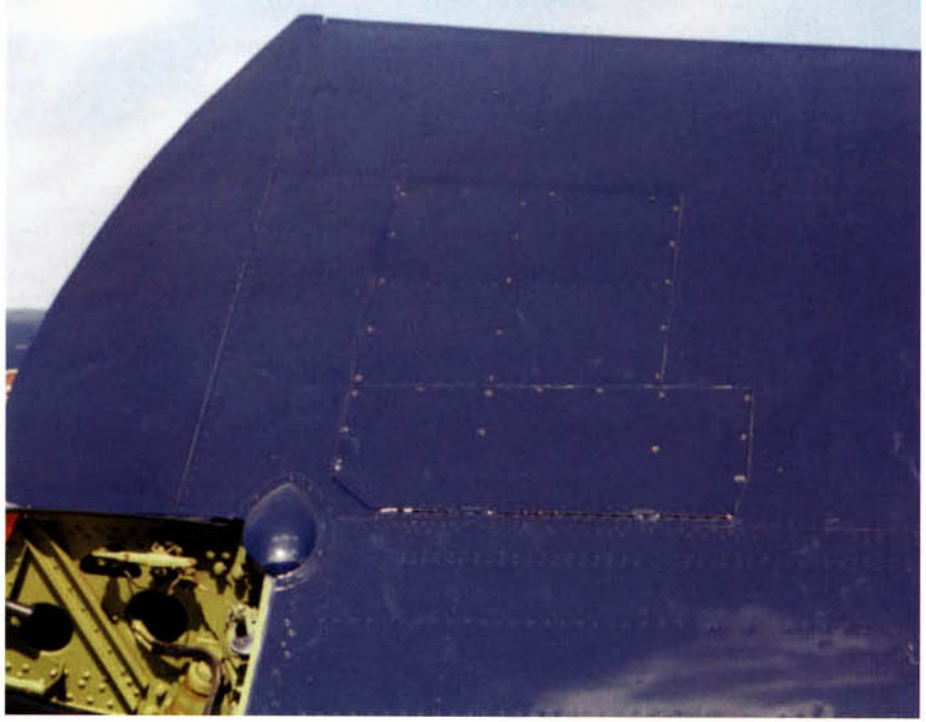
Some 100 F4F-7s were ordered but only twenty-one were actually built. The aircraft had an auto-pilot to ease the pilot's workload on long photo flights. Just below the rudder were two fuel jettison pipes. The F4F-7 had an endurance of twenty-four hours and a gross weight of some 10,328 pounds. (Grumman)

The camera system was mounted in the belly on the F4F-7. The aircraft carried no armament and had a rounded Plexiglas windscreen instead of the normal bullet resistant windscreen found on fighter variants of the Wildcat. (Grumman)

The FM-2 was the last production variant of the Wildcat line and was produced by Eastern Aircraft. It used the same wing fold as the earlier F4F-4 and FM-1 variants. With the wings folded the Wildcat did not take up much room on a carrier deck. (Author)

These are the wing gun ports on an FM-2. Like the earlier FM-1, the light weight FM-2 carried four .50 caliber machine guns instead of the six carried on the earlier F4F-4. (Author)

The spent shell chutes are located under the wing and are staggered. The inboard gun chute is closest to the wing leading edge. The curved line near the chute is the triangular panel that folds down when the wing is folded. (Author)



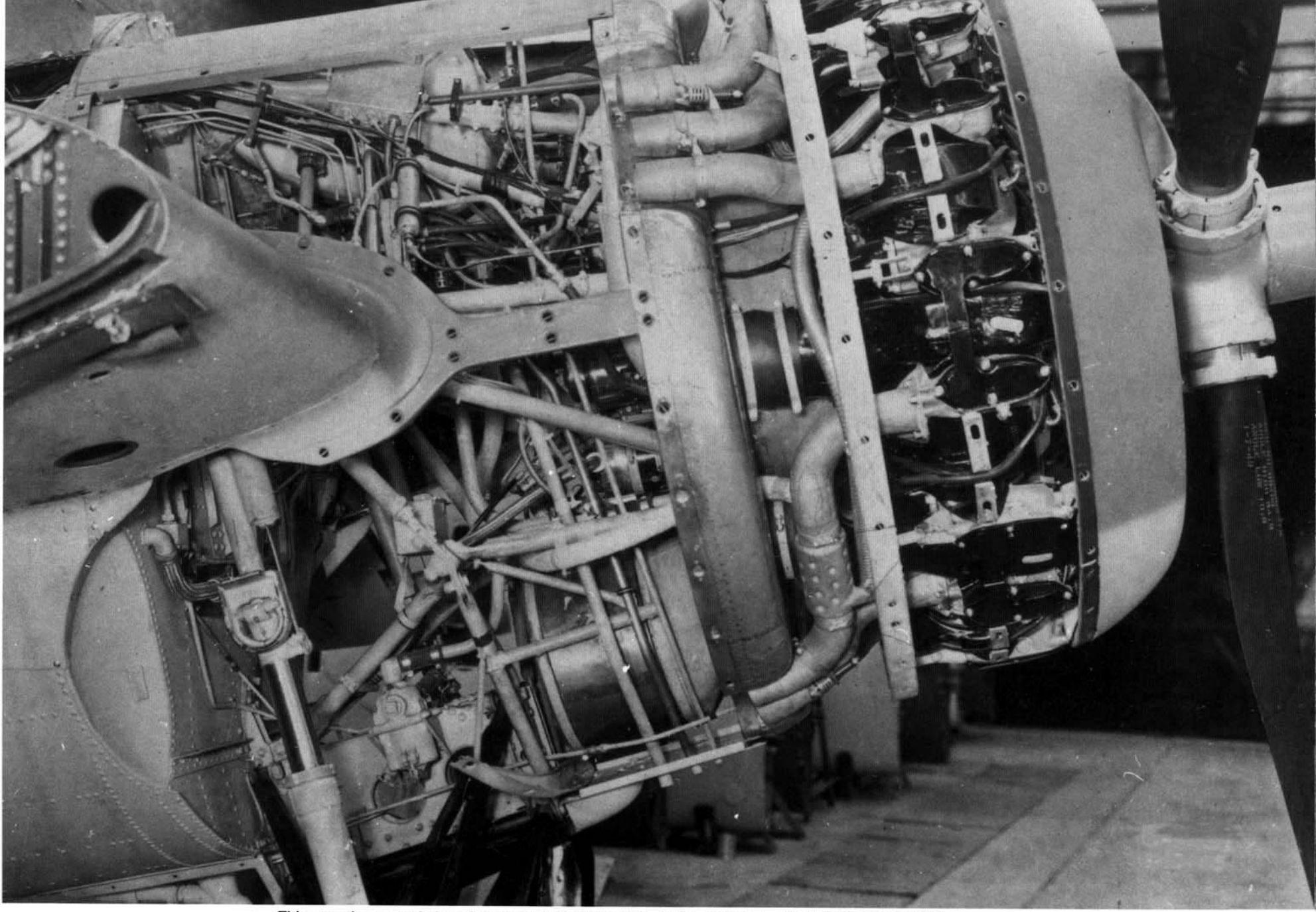
The gun bay access panel arrangement on an Eastern Aircraft FM-2 Wildcat. Both panels are secured with quick opening Dzus fasteners with the forward edge of the panel being hinged. The small fairing covers the wing fold hinge. (Author)

This is the attachment point for one of the two fifty-eight gallon external fuel tanks that could be carried under the wings of the FM-2 Wildcat. (Author)

This access panel allows access to the wing lock pin and unlocking handle. The small knob near the top of the panel is the latch for opening the door. The circular object is the wing fold pivot point fairing. (Author)

The XF4F-8 (BuNo 12228) on the ramp at the Grumman factory on 12 November 1943. The XF4F-8 went into production as the FM-2, built by the Eastern Aircraft division of General Motors. The first XF4F-8 used the same short fin and rudder as earlier F4Fs, while the second XF4F-8 had a tall fin and rudder. (Grumman)

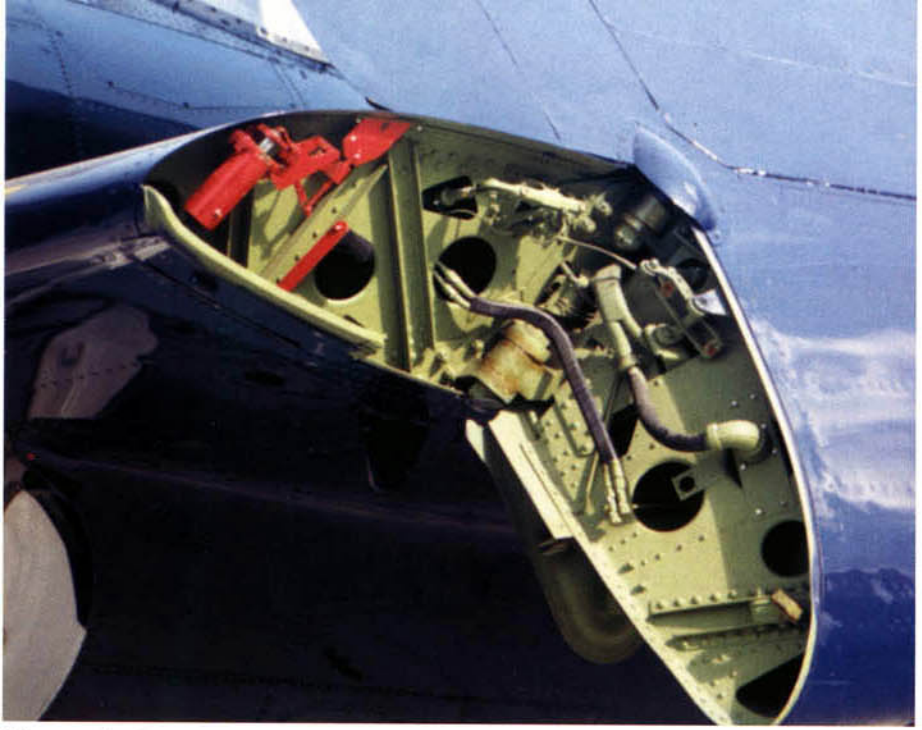
This Eastern Aircraft FM-2 Wildcat carries a pair of fifty-eight gallon underwing fuel tanks. The FM-2 featured a taller fin and rudder than the F4F series, individual jet exhaust ports, a Wright R-1820 engine and was lighter. This FM-2 has had the arrestor hook fairing removed from the tail. It is painted in the three-tone camouflage. (San Diego Aerospace Museum)



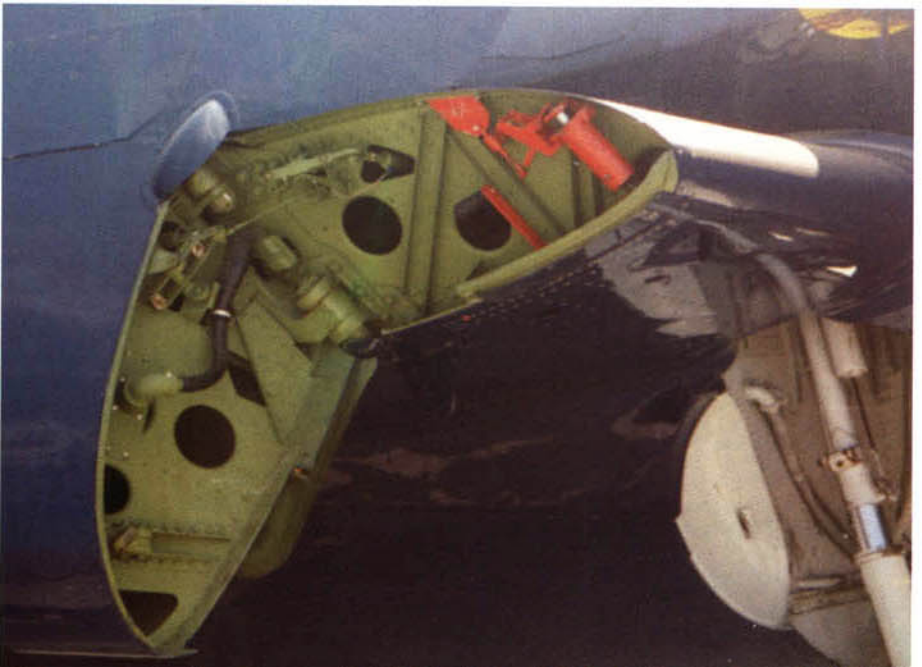
This was the uncowled engine and accessory section of the XF4F-8, the prototype of the FM-2 series. The engine was a single row Wright R-1820 air-cooled radial with individual jet exhaust stacks. The engine oil cooler was located just forward of the landing gear. (Grumman)

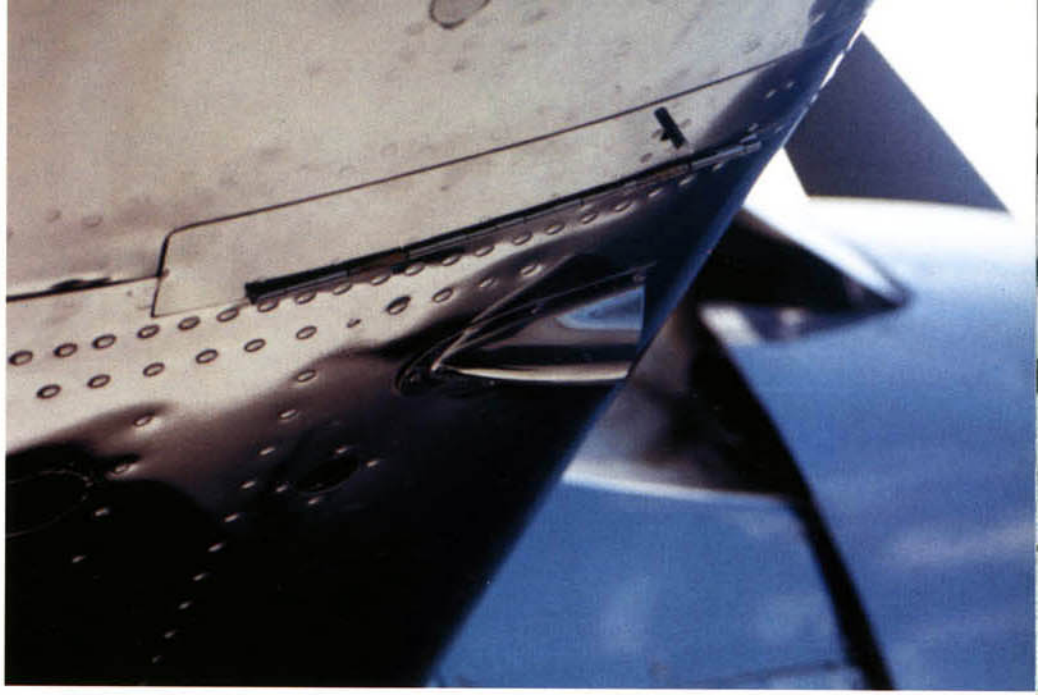
The trailing edge of a FM-2 wing showing the external flap indicator just above the "No Step" lettering. The wing fold line and gun bay access panels are also visible. (Author)

The rear of the wing fold on a FM-2 Wildcat. The split flap is clearly visible as are the flap hinges. The holes in the wing rib were to lighten the structure. (Author)



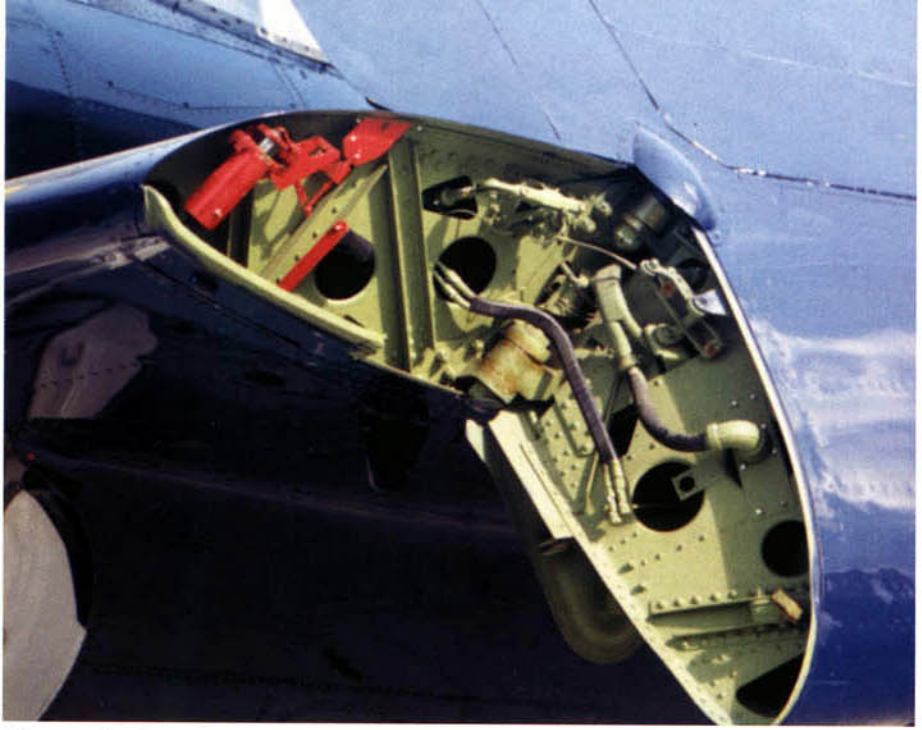
The port (top) and starboard (bottom) wing fold areas. The Black taped pneumatic lines are for the pitot static system. The taped electrical conduct is for electrical systems within the wing. The Red object at the leading edge of the wing is the wing lock pin. The handle attached to the lock pin swings down 90 degrees through a small access door and is used to screw the lock into place. Once the lock is secure, the wing fold warning flag will disappear, letting the pilot know the wing is locked. (Author)





This small panel under the wing is the wing lock pin access door. There is a small cooling airscoop just outboard of the access panel on the starboard wing. (Author)

This small hinged panel opens when the wing is folded. The oval panel on the wing underside is where the oil cooler on the FM-1 and F4F was located. When the oil cooler was relocated to the cowling, flush fitting oval panels were put in their place. (Author)



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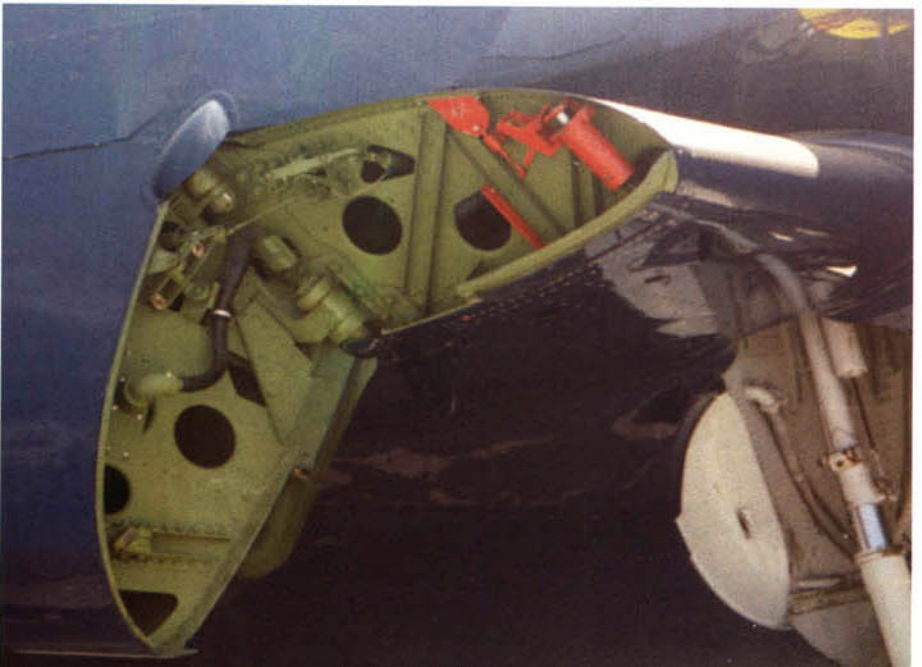

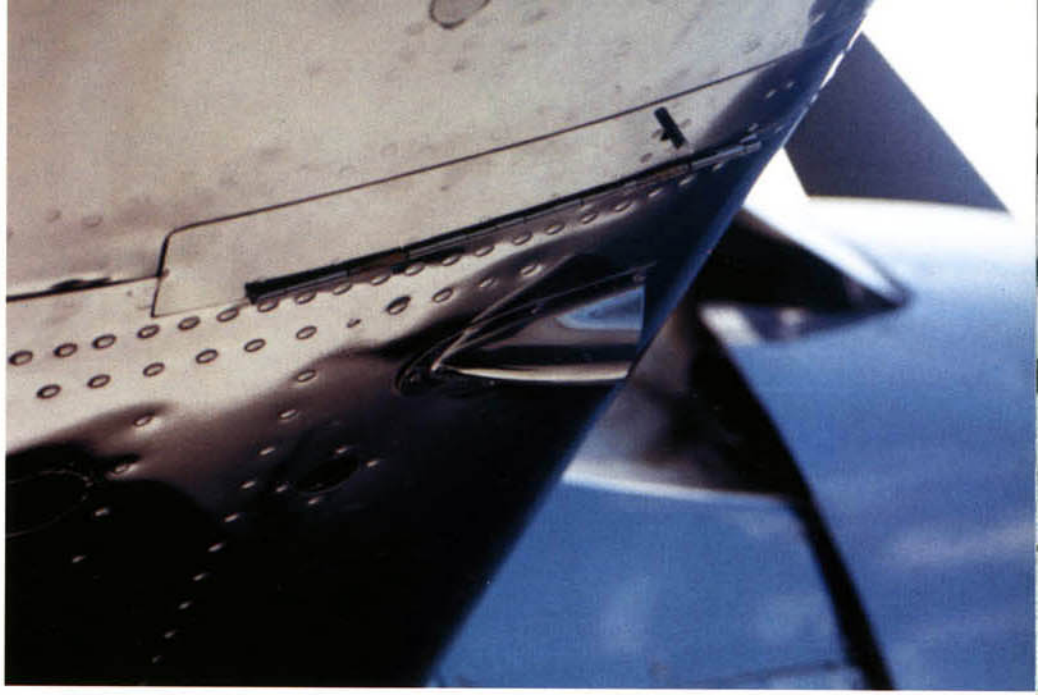

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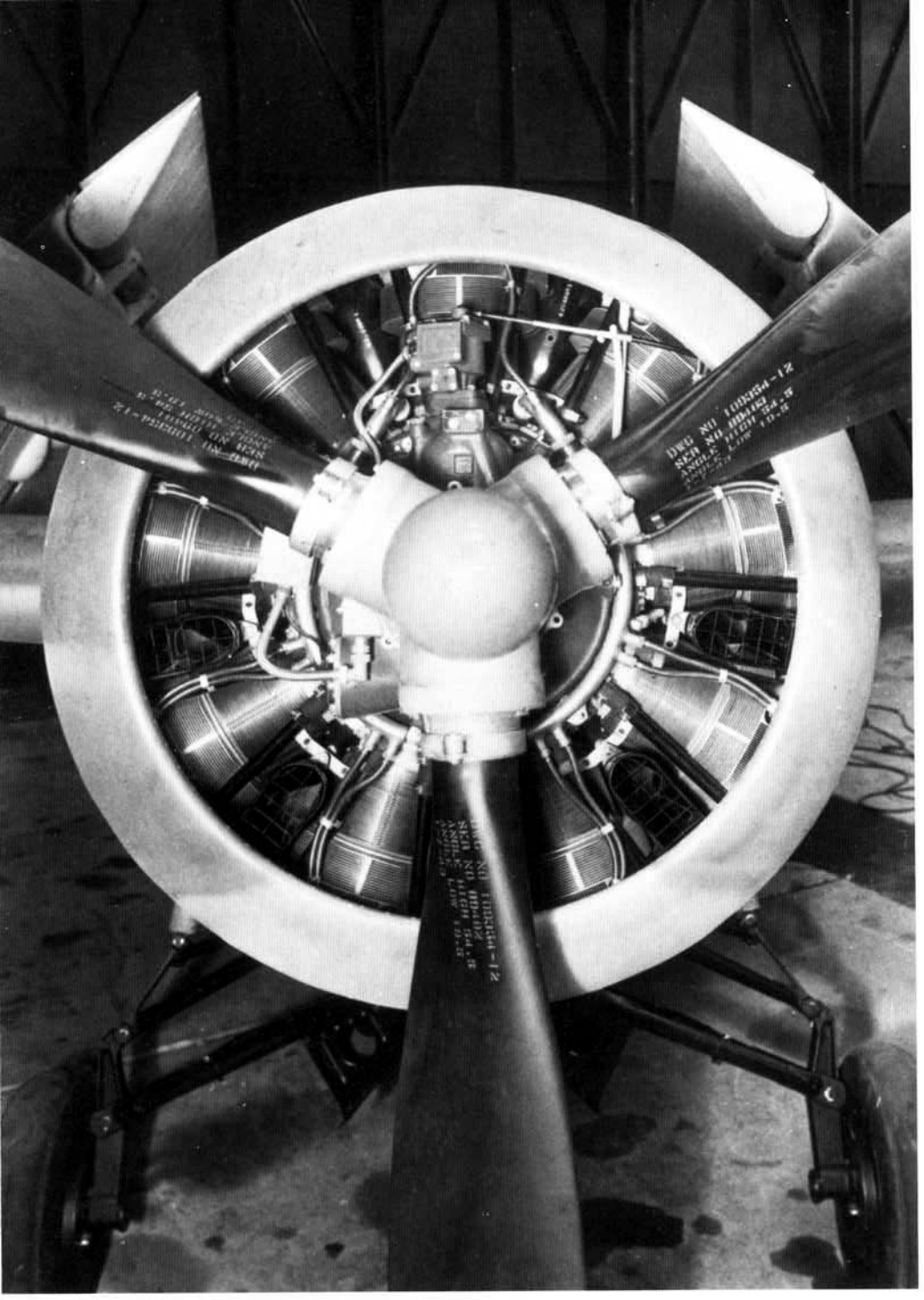
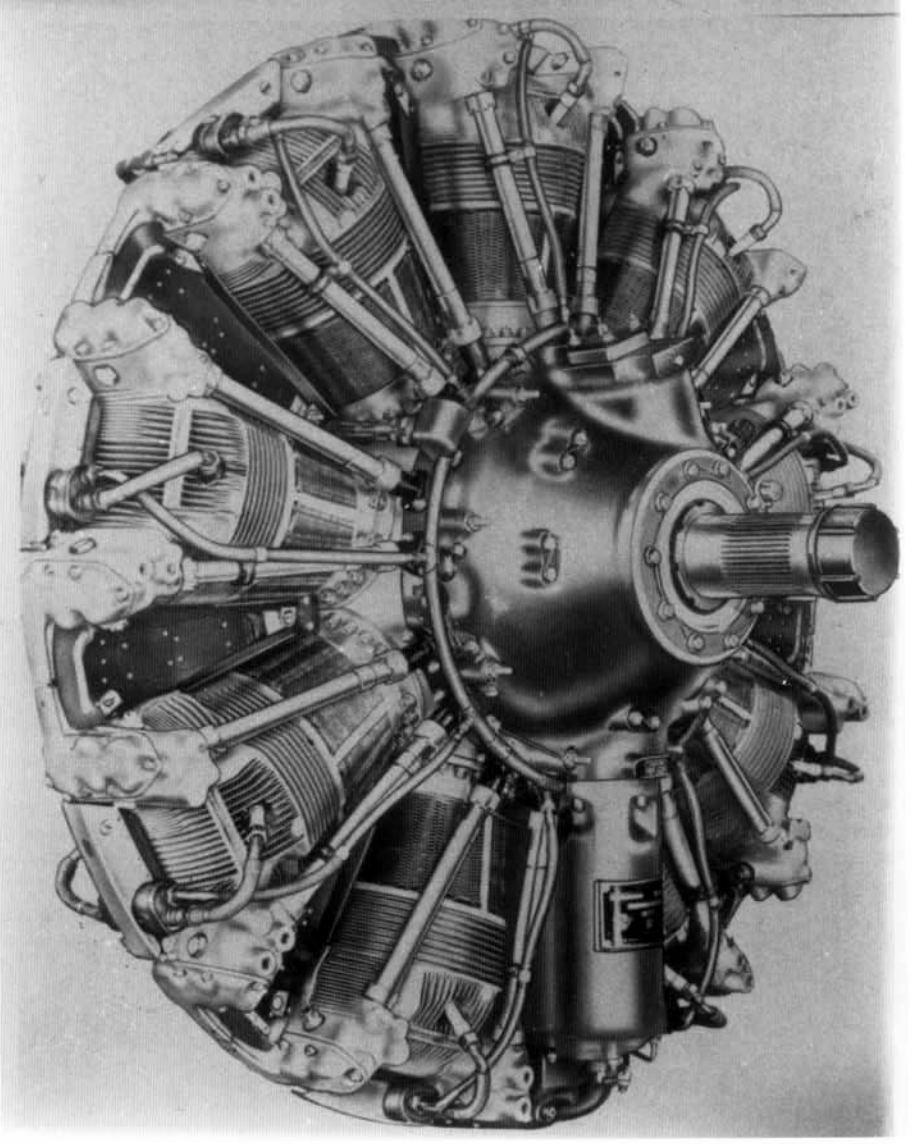




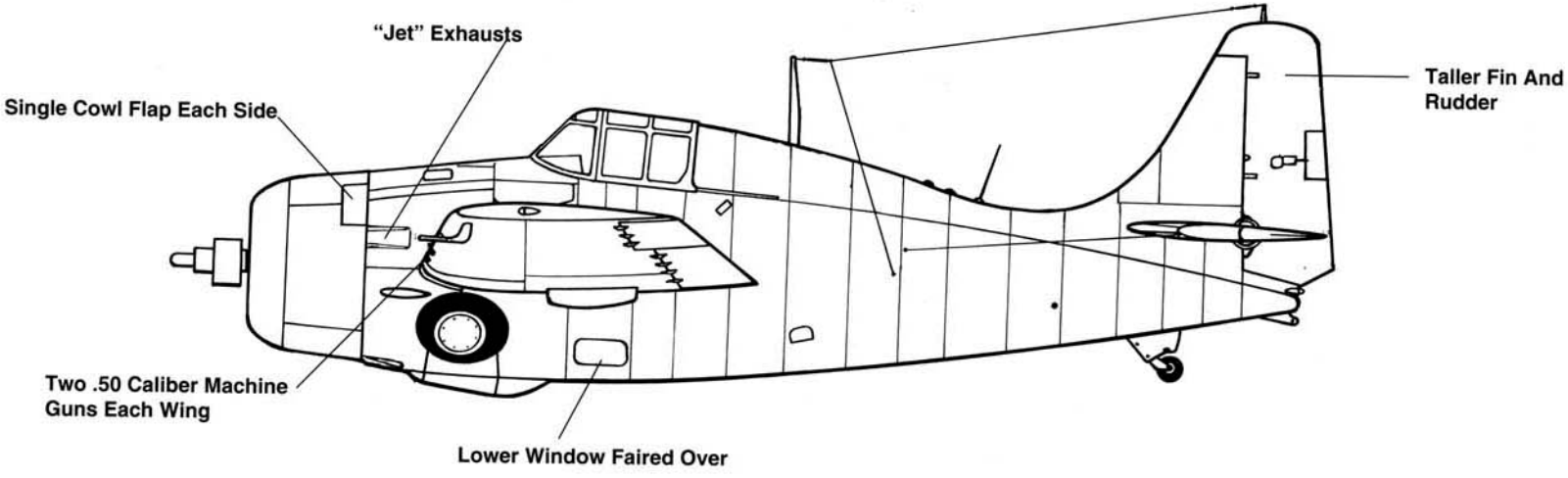
The 1,350 hp Wright R-1820-56 nine cylinder air-cooled radial was selected to power the FM-2 series fighter. The increased power made it necessary to increase the size of the fin and rudder to counteract the increased torque. The engine had a downdraft carburetor system. (San Diego Aerospace Museum)

(Left) This engine installation was used on both XF4F-8s (BuNo 12228 and 12229) , the prototypes for the General Motors, Eastern Aircraft FM-2 series.

This Eastern Aircraft FM-2 Wildcat missed both the arresting cables and crash barrier and is headed for the parked aircraft on the forward flight deck as the deck crew scrambles for safety. (San Diego Aerospace Museum)

This beautifully restored, overall Gloss Sea Blue FM-2 Wildcat is on display at the Cavanaugh Flight Museum in Addison, Texas. The aircraft is flyable and performs in air shows. (Nick Waters)

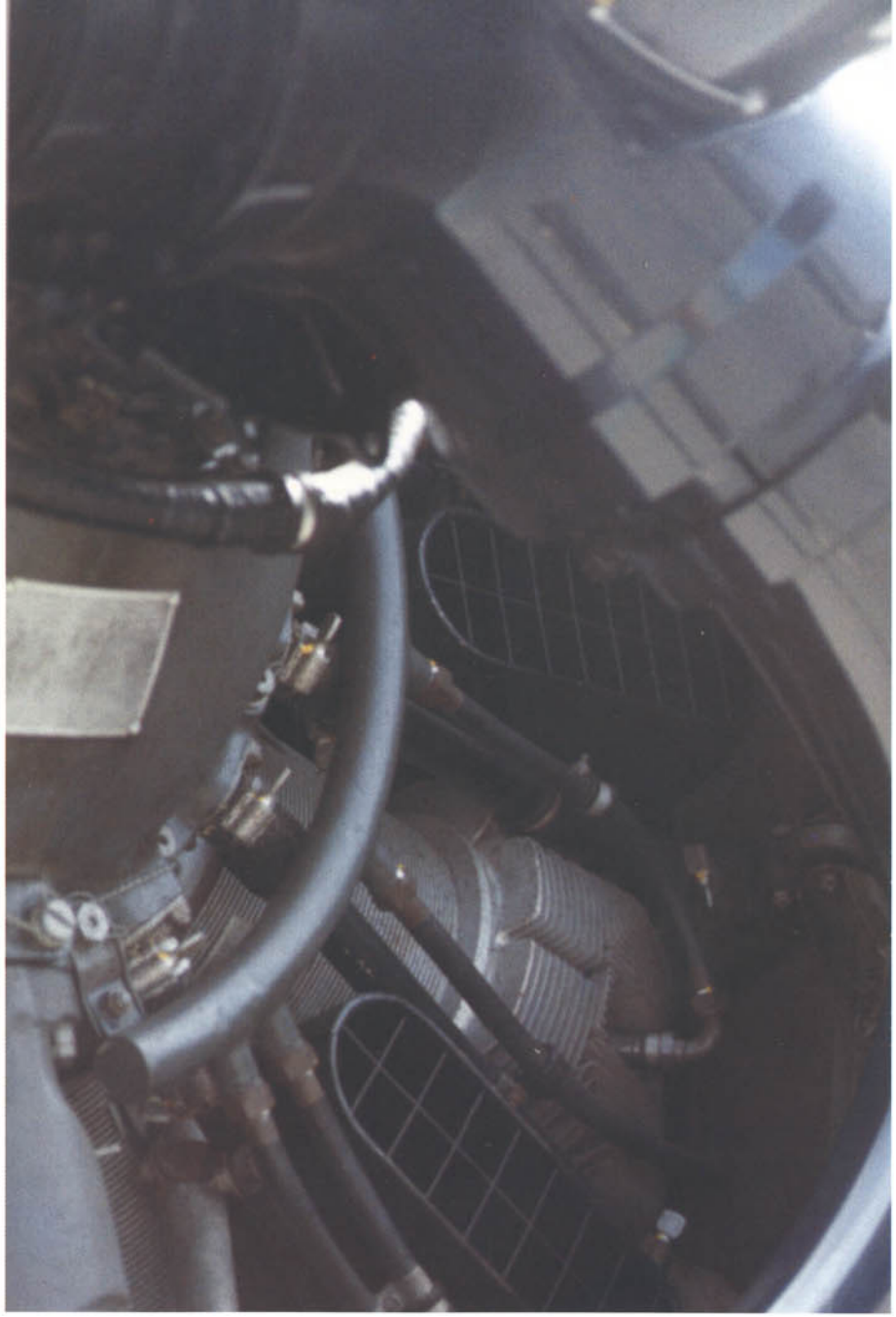
Identification Features General Motors FM-2 Wildcat


"Jet" Exhausts
Single Cowl Flap Each Side
Taller Fin And Rudder
Two .50 Caliber Machine Guns Each Wing
Lower Window Faired Over

The Eastern Aircraft division of General Motors built the FM-2. It was powered by a Wright R-1820 Cyclone engine which featured "Jet" exhausts. There were four exhaust ports, one on each side of the fuselage and two under the nose. There were three drains protruding from under the nose. (Author)

The FM-2 had a single cowl flap on each side of the nose just above the exhaust port. The wire in the foreground is one of the radio antennas. (Author)

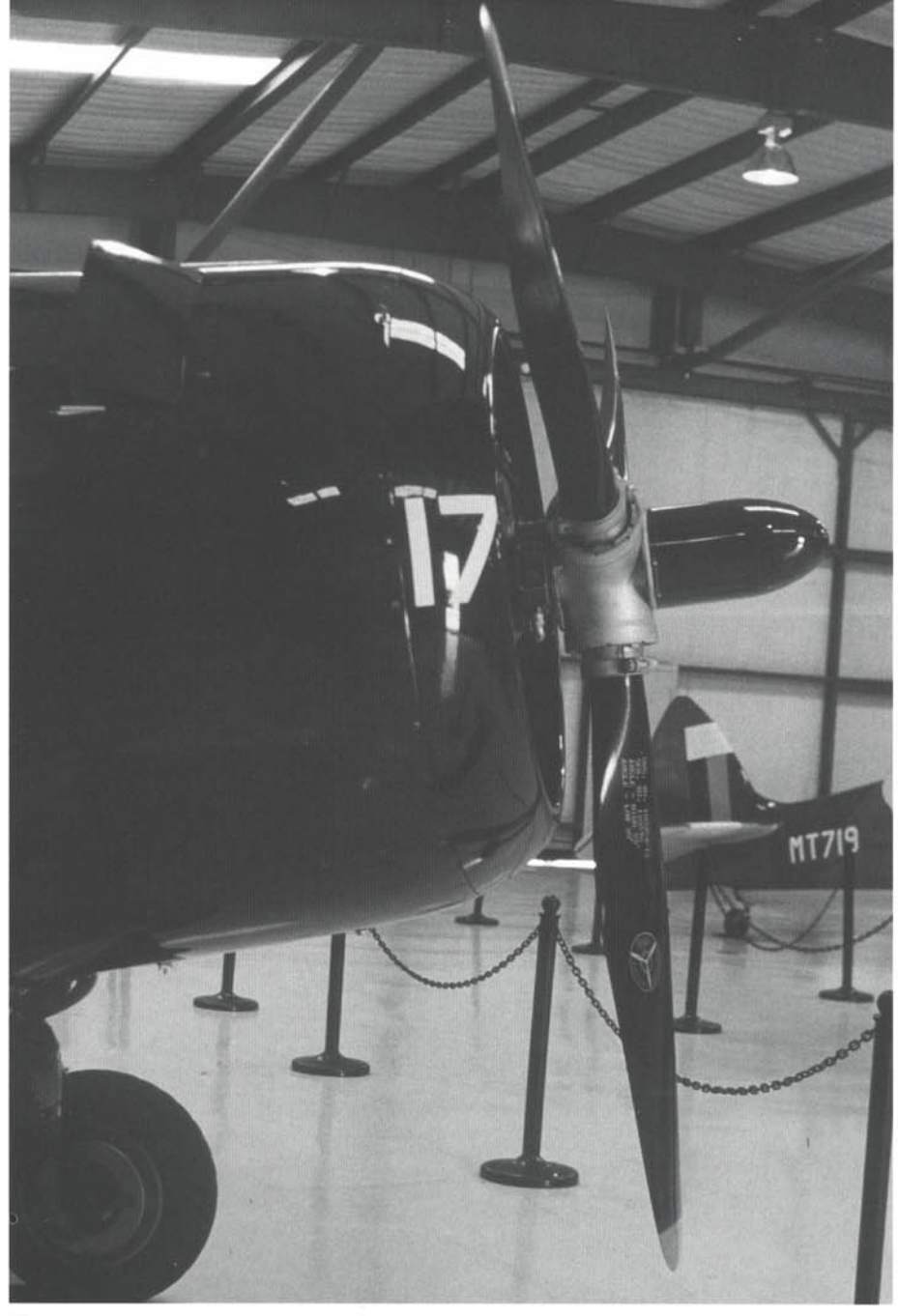
There were two exhausts under the nose. The Wright single row radial was more powerful than the Pratt & Whitney engines that powered the F4F-3 and F4F-4 and this, coupled with the FM-2s lower weight, gave it better performance than the earlier Wildcats. (Author)



The Wright engine had two air scoops, each with a different function. The lower scoop fed air to the oil cooler and the upper scoop fed air to the carburetor. The oil sump is at the lower left. (Author)

The FM-2 used an uncuffed Curtiss Electric propeller. The bottom pair of air intakes fed the oil cooler, the upper set fed the carburetor. This engine used a downdraft carburetor. (Author)

This FM-2 is fitted with a Curtiss Electric propeller. FM-2s used both Curtiss Electric and Hamilton Standard propellers, depending on the production batch. The propeller serial and other information was stenciled on each blade in Yellow. (Nick Waters)



The exhaust port just below the single cowl flap is in heat discolored Natural Metal, as is the port below the nose. Most FM-2s carried the overall Gloss Sea Blue color scheme. (Nick Waters)

The heat from the engine exhaust quickly discolored the Natural Metal exhaust port and often burned off some of the paint from the fuselage behind the port. The single cowl flap is in the fully open position, which was normally only seen when the aircraft was on the ground. (Nick Waters)

One of the "Jet" individual exhaust stacks is visible within the exhaust port. The stack is heat discolored Natural Metal which looks almost to be a Rust color. (Nick Waters)

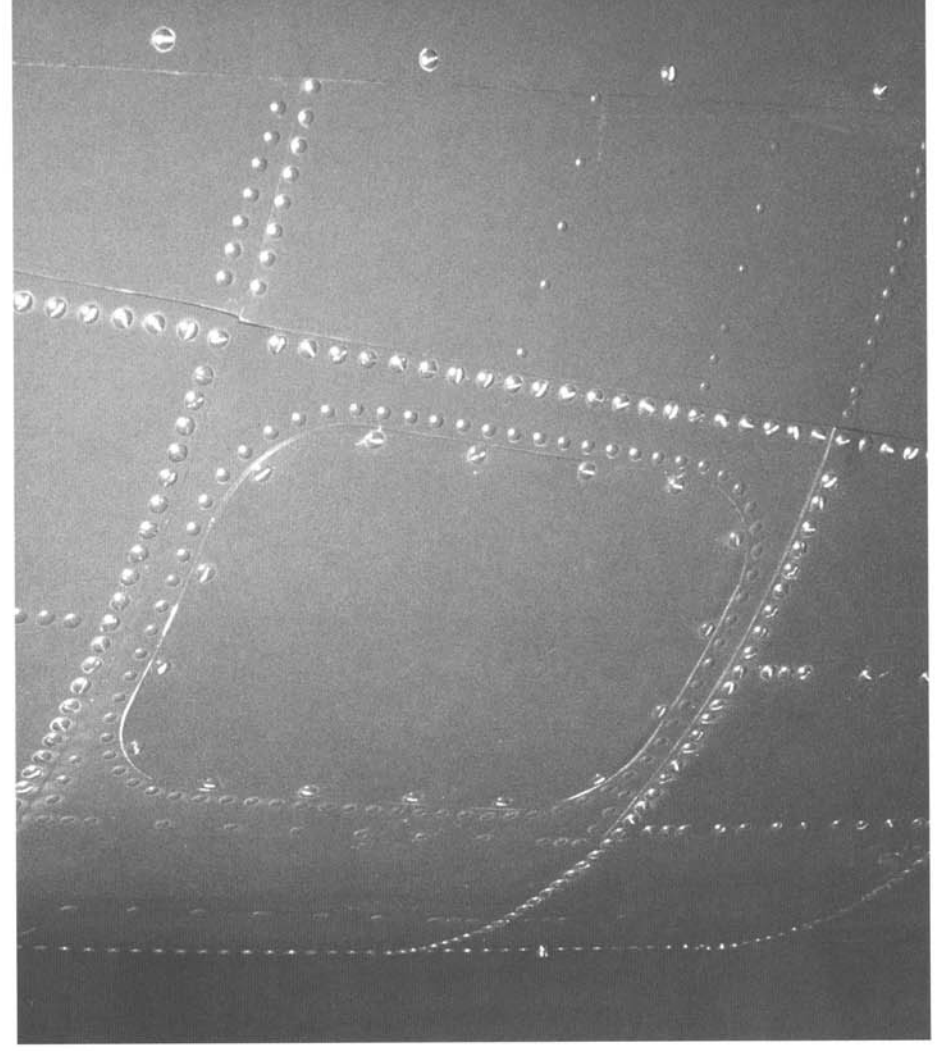
The main landing gear on the FM-2 was the same as that used on earlier variants of the Wildcat. The interior of the wheel well is Gloss White. The lettering on the wheel cover reads "Tire 85 LBS." (Nick Waters)

The main landing gear, tires and wheels of a FM-2 Wildcat. In service, FM-2s rarely had wheel covers. The landing gear was constructed of welded steel tubing. (Author)

This is the starboard main landing gear on a FM-2. The landing gear down lock and strut pivot point are visible just above the Silver part of the oleo strut. (Author)

Port main landing gear strut. The hydraulic tube running down the firewall and the landing gear door is for the hydraulic Bendix drum brake. The small cylinder just forward of the main landing gear strut is the landing gear down lock. (Author)

The starboard main mount of FM-2. The pivot point for the retraction mechanism is just above the exposed portion of the oleo strut. The Black electric motor just behind the retraction arm was used to raise and lower the landing gear electrically for increased safety. This was not a feature of wartime FM-2s but was added to restored aircraft.



This oval panel on the fuselage underside under the wing is the fairing over what had been the window opening on earlier variants of the Wildcat. All FM-2s had this window faired over with a smooth metal panel, since the small window had proven to be of little value in actual service. (Nick Waters)

The main landing gear strut is Light Gray, the retraction struts are Gloss Black, the interior of the wheel well is Gloss White and the Remove Before Flight banner is Red with White lettering. Just forward of the wheel well is a heat discolored panel, which is just behind the port exhaust port. (Nick Waters)

The main landing gear and fuselage underside of a FM-2 Wildcat. This Wildcat is flyable and the two lids are to catch fluids, such as hydraulic fluid or oil, that may drip from the aircraft. There are drains under the nose section and back about midway along the fuselage. The small bent wire just behind the landing gear is a radio antenna. This antenna was not a feature of wartime FM-2s and was added to this aircraft as a safety measure when flying on airways. Most restored Second World War aircraft have been modernized to some extent to include the necessary radio and electronic equipment needed to meet Federal Aviation Agency rules and regulations. (Nick Waters)

The FM-2 was equipped with hydraulic drum brakes manufactured by Bendix. The Wildcat had a very narrow track landing gear and ground loops were a common problem. (Author)

(Left) Oil cooler ducting is visible to the left of the oleo strut, while the oil cooler is visible to the right of the strut. The oil cooler normally sets sideways in the bottom of the cowling behind the engine. (Author)

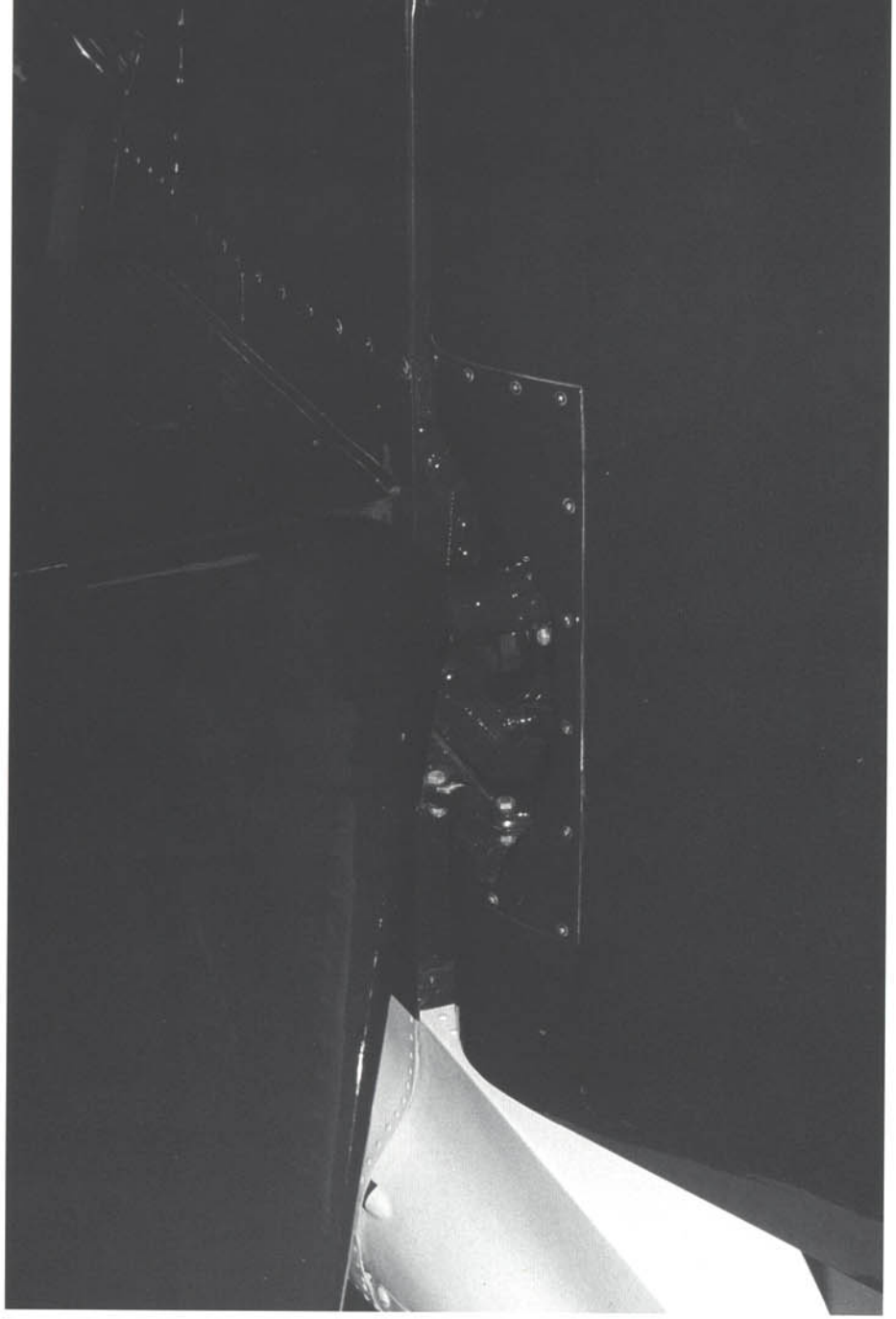
The main landing gear doors on a FM-2 . The object between the doors is the catapult bridle hookup. (Author)

The FM-2 had the same L shaped pitot tube as the F4F-4 and FM-1. The wings on the Wildcat were folded and unfolded manually. (Author)

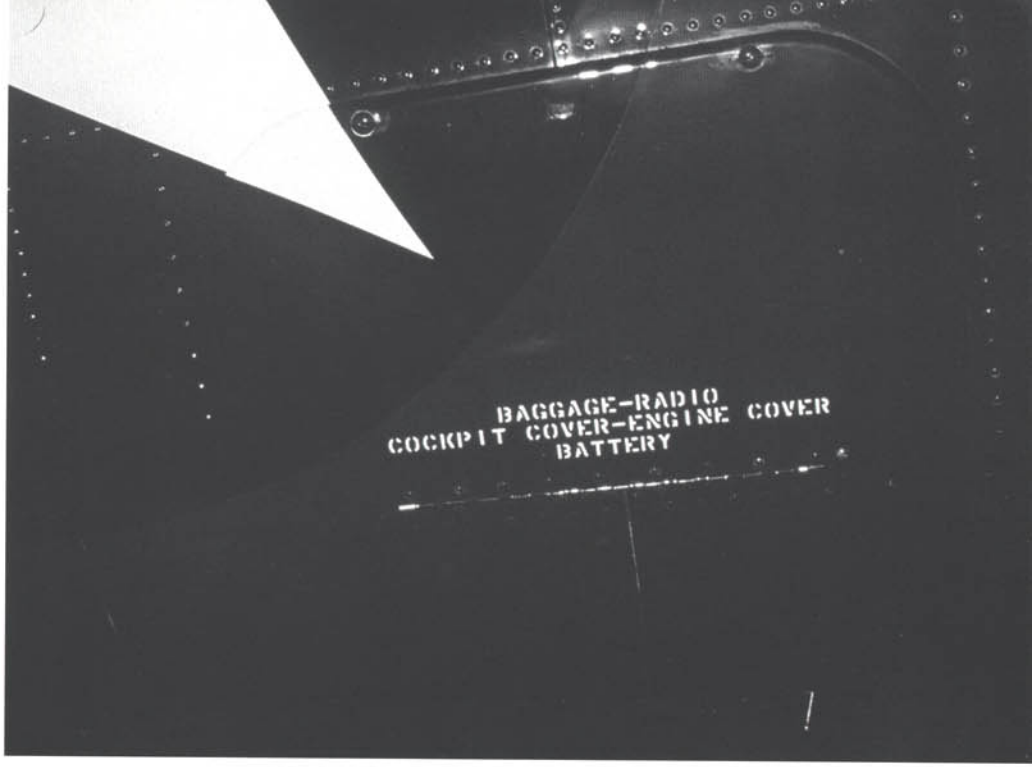
(Right) The Wildcat series employed split flaps. On the folding wing variants, the flap was in two pieces. There are a total of five hinges that hold the flap in place, while the earlier F4F-3 had only four hinges. (Author)

The starboard wingtip of a FM-2. The Green position light was on the wingtip, while the Blue formation light was on top of the wing. The small tab for securing the wing to the stabilizer when folded is near the leading edge of the wingtip. (Author)

The Wildcat wings folded manually and were locked into the unfolded position using the handle protruding from its storage bay (left). The lock/unlock handle was turned by ground crews to secure the wing in place once it was spread. There was a visual indication on top of the wing to let the pilot know that the wing was locked. Once locked, the handle was rotated back into its bay and the access panel secured. There are both pitit/static and electrical tubes running into the wing. The holes in the wing rib served two roles. One, to allow access for plumbing and to lighten the structure. The FM-2 was the lightest of the Wildcat series, A total of some 4,777 FM-2s were built. The stenciling in the wing reads, "Disconnect electrical plug before removing outer panel." (Nick Waters)



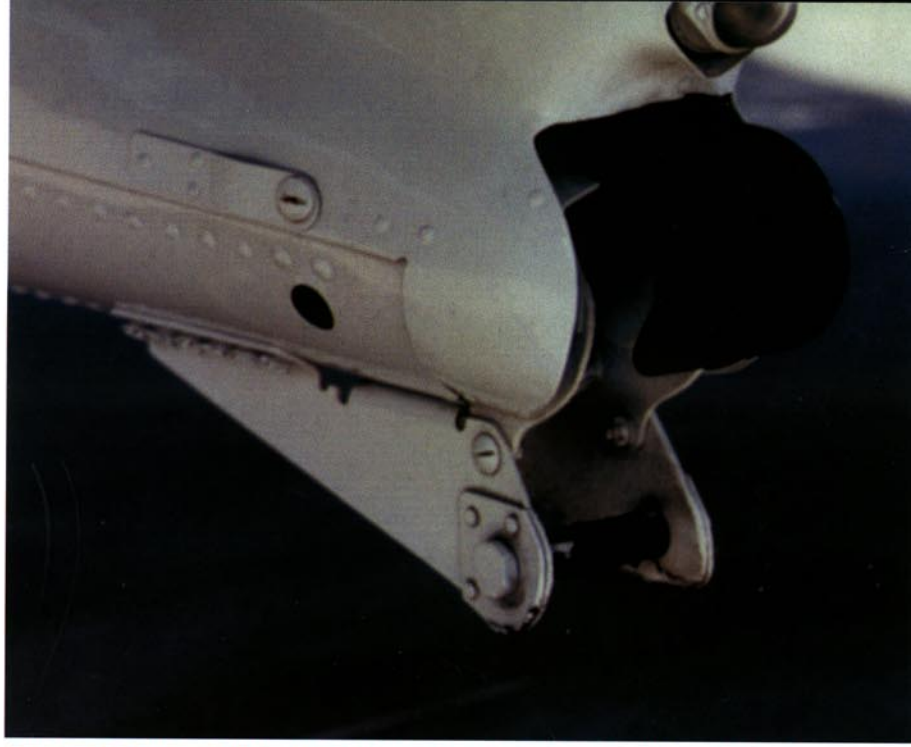
This is the cut-out in the rudder for the elevator hinge. All Wildcats had this cut out, although some had a more pronounced opening. (Nick Waters)



This is the baggage/radio compartment access hatch on a FM-2. Stowed in the baggage compartment were the engine cover and cockpit canopy cover. The aircraft's battery was also located in this compartment.

The rear fuselage lift point is basically a hole that runs through the fuselage. A pipe is inserted through the hole and lifting lines are attached to this pipe. (Nick Waters)

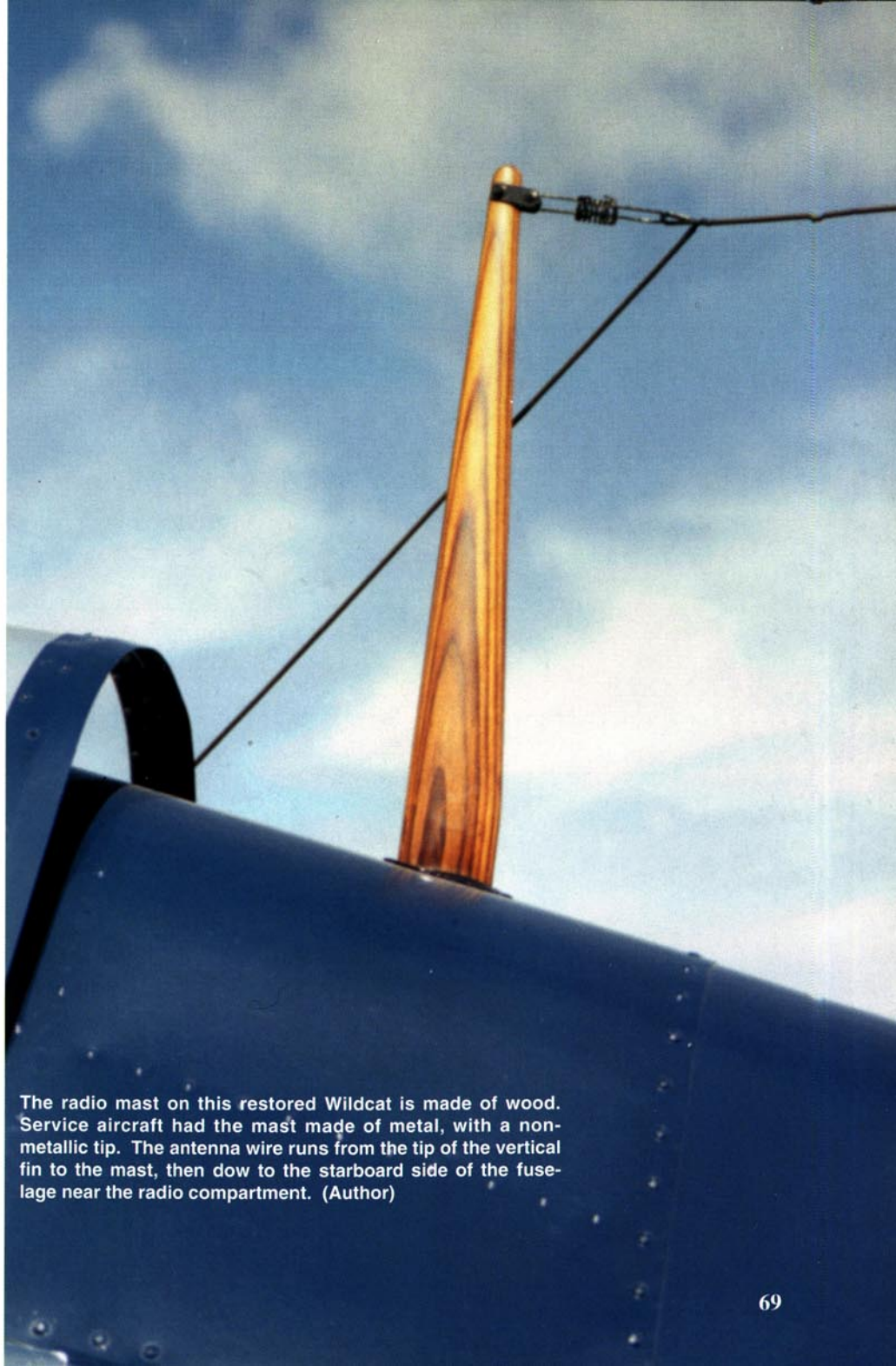
The port fin and rudder of a FM-2. The FM-2 had a much taller fin and rudder than earlier variants of the Wildcat. The radio antenna wire was attached to a tab at the top of the vertical fin. (Author)



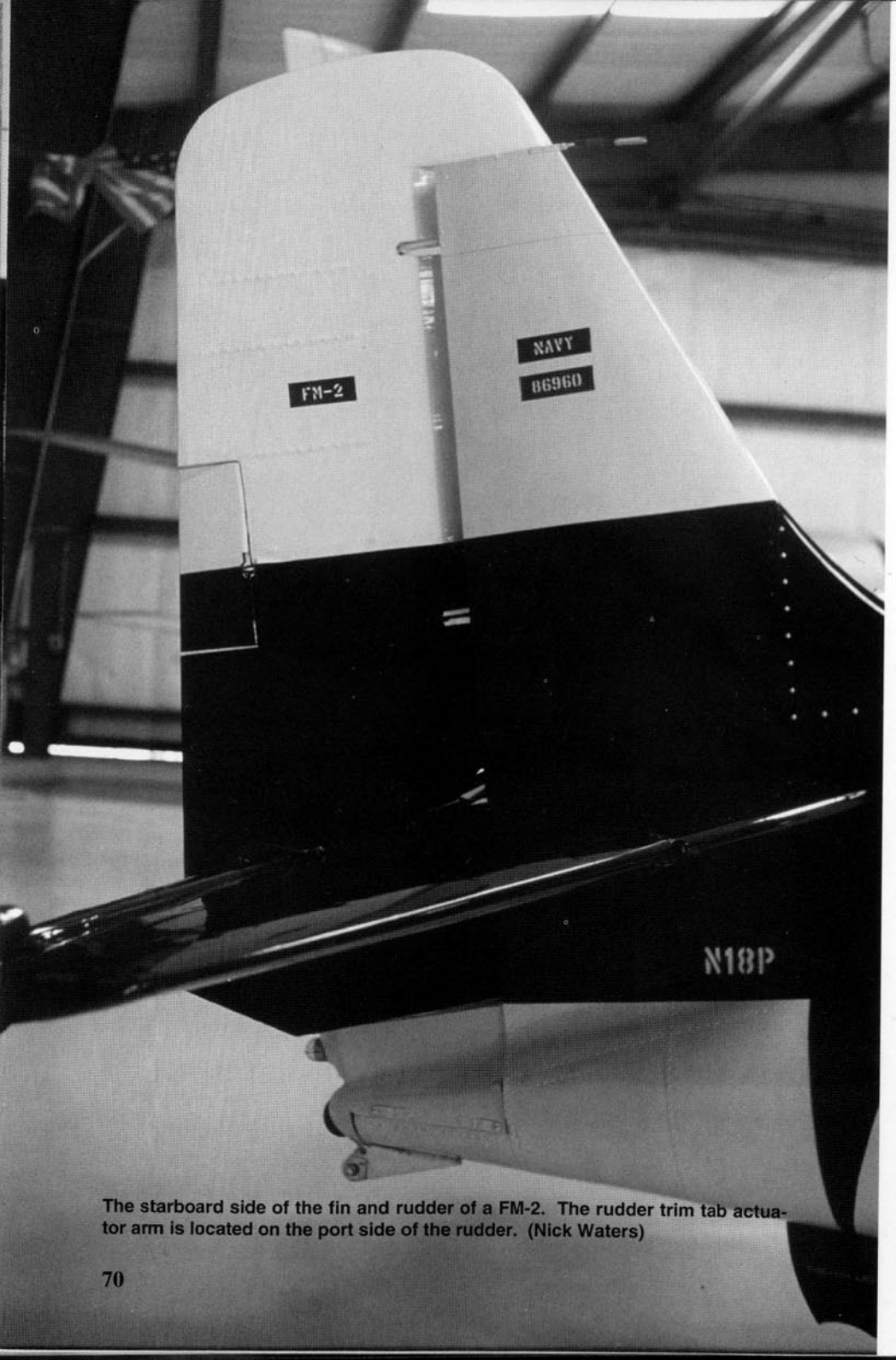
The arrestor hook is fully enclosed when retracted. The hook slides back and downward when fully extended. The tail tow lug also acts as a travel stop for the arrestor hook. The light above the hook is the tail position light. (Author)

This FM-2 is owned by Cinema Air. The tail wheel installed is the solid carrier type wheel. The wheel is fully castering, but can be locked for takeoff. (Author)

This restored FM-2 does not have a reflector gun sight installed in the cockpit. The pilot's headrest is also different than on wartime FM-2s. Most service aircraft had a rounder and larger headrest. The fuel filler cap is at the lower left (above) and there is a spring loaded hand hold in the fuselage side just below the sliding canopy. (Author)



The radio mast on this restored Wildcat is made of wood. Service aircraft had the mast made of metal, with a non-metallic tip. The antenna wire runs from the tip of the vertical fin to the mast, then dow to the starboard side of the fuselage near the radio compartment. (Author)

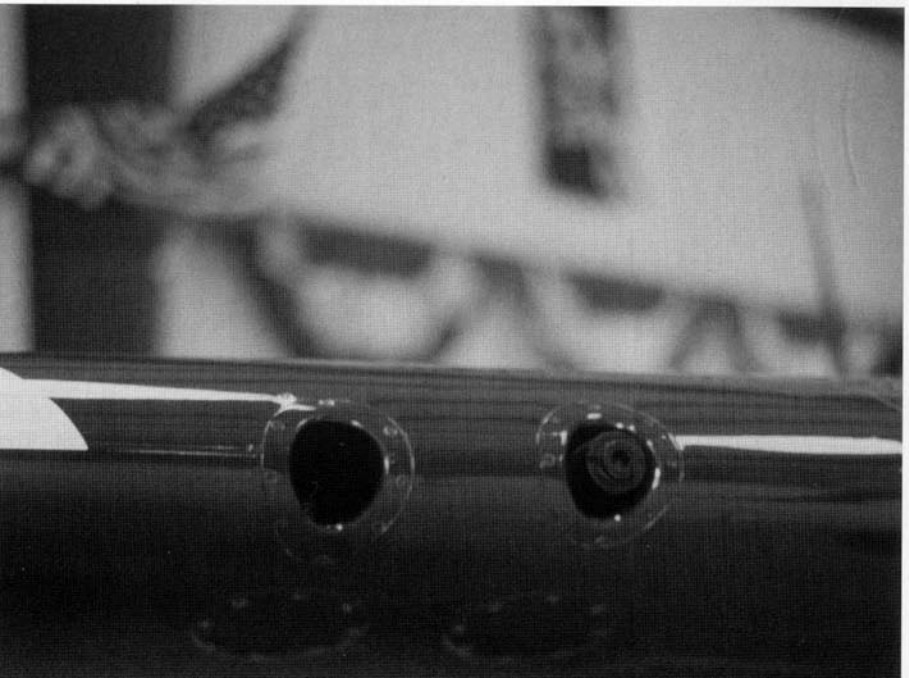


The starboard side of the fin and rudder of a FM-2. The rudder trim tab actuator arm is located on the port side of the rudder. (Nick Waters)

This is the locking bar used to secure the wing to the horizontal stabilizer when the wing is folded. The bar attached to the stabilizer then to a small tab near the wingtip. This kept the wing from moving during a heavy wind, a condition often found on carrier decks. (Nick Waters)

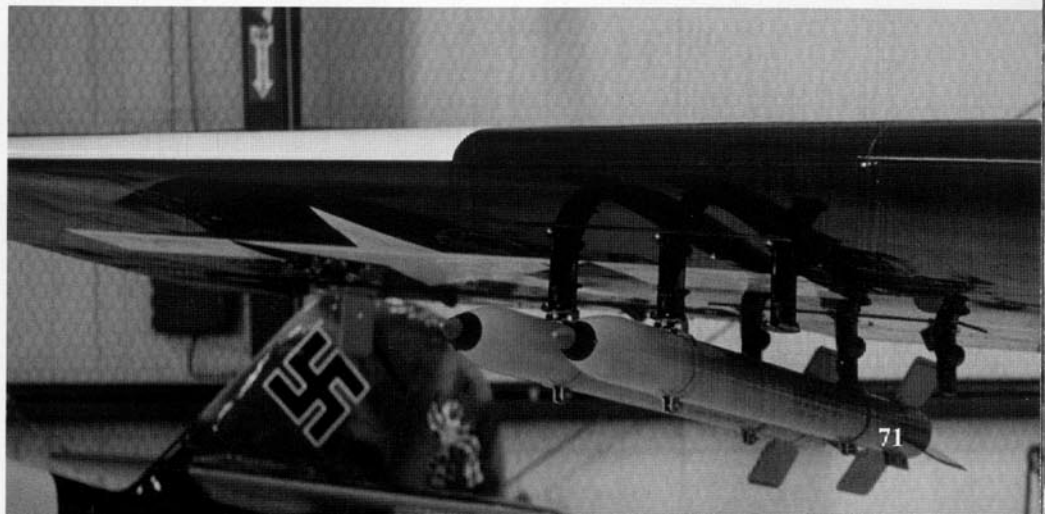
The port horizontal stabilizer/elevator of a FM-2 Wildcat. There are two main hinges and a elevator trim tab on each horizontal stabilizer. (Nick Waters)

The FM-2 like the earlier FM-1 was armed with four .50 caliber Browning machine guns mounted in the wings outboard of the wing fold. The guns were flush with the wing leading edge. (Nick Waters)



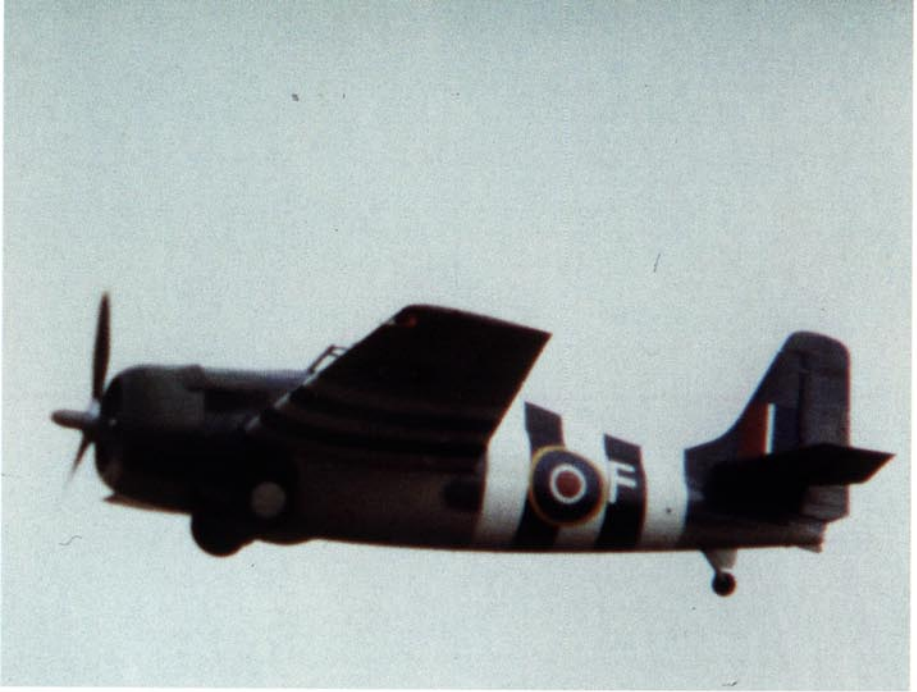
The wing walk was made of a non-skid material and there was one on each side of the aircraft. This Wildcat has a reflector gun sight mounted in the cockpit. (Nick Waters)

The FM-2 had the provision for underwing rockets. A total of six could be carried, three under each wing on zero-length launcher stubs. (Nick Waters)



Although flight gear was not standardized during the Second World War, the author, Lieutenant Rich Dann, USNR, displays what the typical Wildcat pilot wore. The Mae West life jacket straps around the back and through the crotch. The vest can be inflated automatically by pulling on the CO2 tabs at each bottom edge., The parachute on the ramp is a seat pack type which also acted as a seat cushion. (SGT Wayne Ellis)

The parachute "D" ring is visible near the left edge of the Mae West life jacket. Quite often, pilots left the parachute in the aircraft and put it on after entering the cockpit. The pilot's helmet also included radio earphones and the goggles were secured through loops on the back of the helmet. (SGT Wayne Ellis)

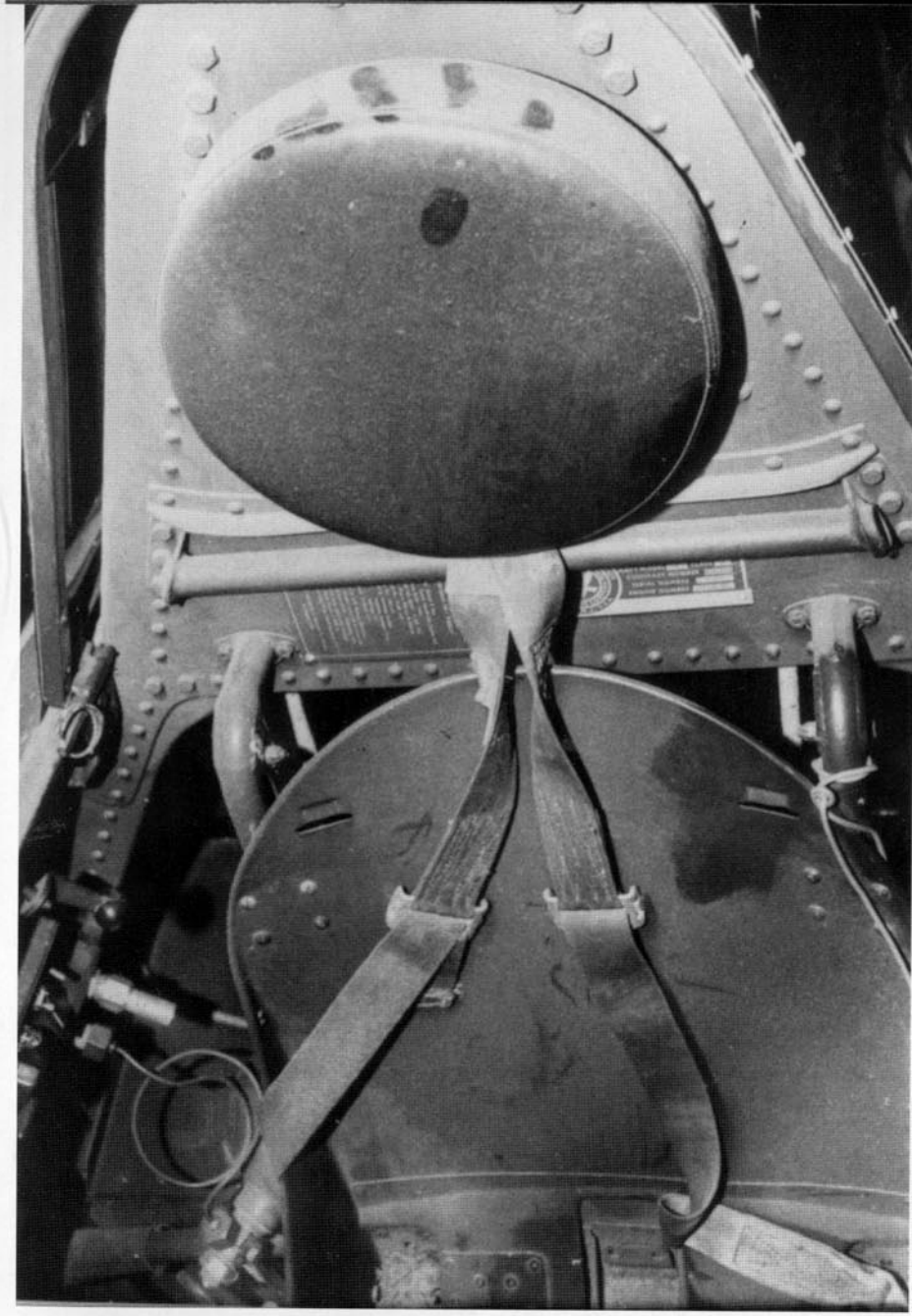


The Royal Navy ordered the FM-2 under the designation Wildcat VI. Some 370 were eventually acquired by the Royal Navy, seeing service in the Far East and North Atlantic. When the war ended, many of these aircraft were dumped at sea. This aircraft has been restored in the markings of No 846 Squadron abroad HMS TRACKER. (Peter Leigh)

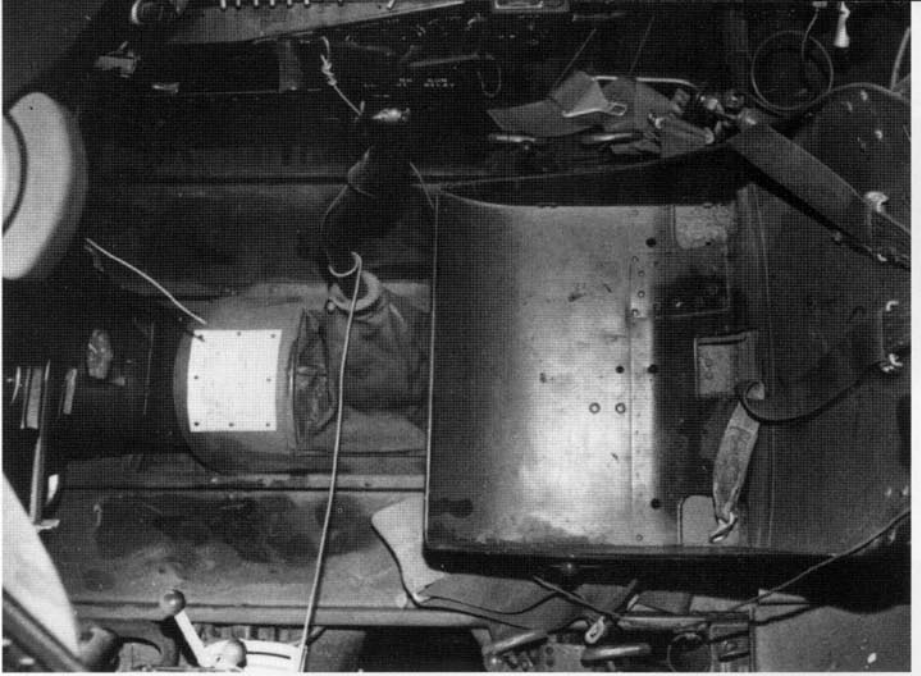
A number of Royal Navy Wildcat VIs operated in the North Atlantic, flying anti-submarine sweeps along the Norwegian coast. They also took part in D-Day operations. This Wildcat VI carries full D-Day invasion stripes. (Peter Leigh)

This Wildcat VI carries a Extra Dark Sea Gray and Slate Gray uppersurface camouflage over Sky undersurfaces and full D-Day invasion stripes. Originally, all Fleet Air Arm Wildcats were called Martlets. During March of 1944, the FAA renamed them all as Wildcat Mk I through VI. Most Wildcat VIs (FM-2) operated in the Pacific theater of operations. This restored Wildcat is a regular at European air shows. (Peter Leigh)

The reflector gun sight on a wartime FM-2 Wildcat. The magnetic compass is just to the left of the sight. The White placard under the air speed indicator is an air speed calibration card. (San Diego Aerospace Museum)



The headrest on a wartime Eastern Aircraft FM-2 was circular in shape. The circular tubing to the right of the seat is the oxygen supply line. (San Diego Aerospace Museum)

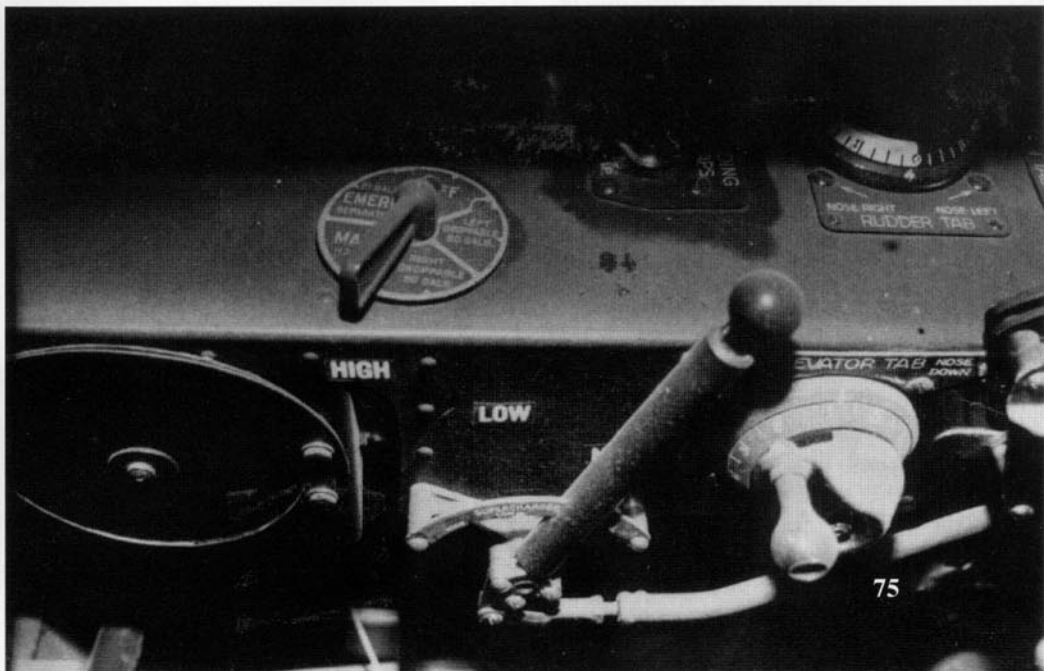


Two machine gun charging handles are located to the left of the pilot's seat. The semi-circular object at left is a leather impact bumper on the gun sight, which was to protect the pilot in the event of a forces landing. (San Diego Aerospace Museum)

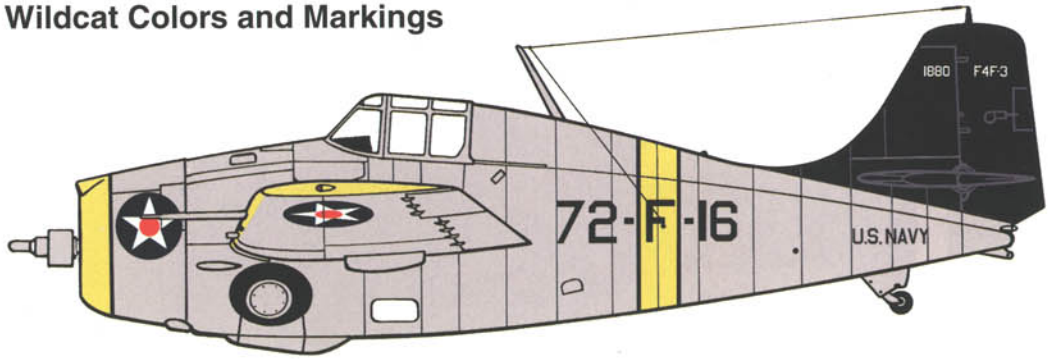
The throttle is in the center along with the mixture controls. Just below the throttle quadrant is the fuel tank/bomb release. The propeller governor and magneto switch are on the instrument panel. (San Diego Aerospace Museum)

Starboard cockpit console on a FM-2. The primary electrical panel is at the upper left and radio controls are just behind the panel. The landing gear retraction/lowering handle is in the center. The triangle handle just behind the landing gear handle is the external fuel tank jettison control. (San Diego Aerospace Museum)

The port cockpit side console on a FM-2. The fuel control and flap control are in the center. The large handle is the supercharger control. (San Diego Aerospace Museum)

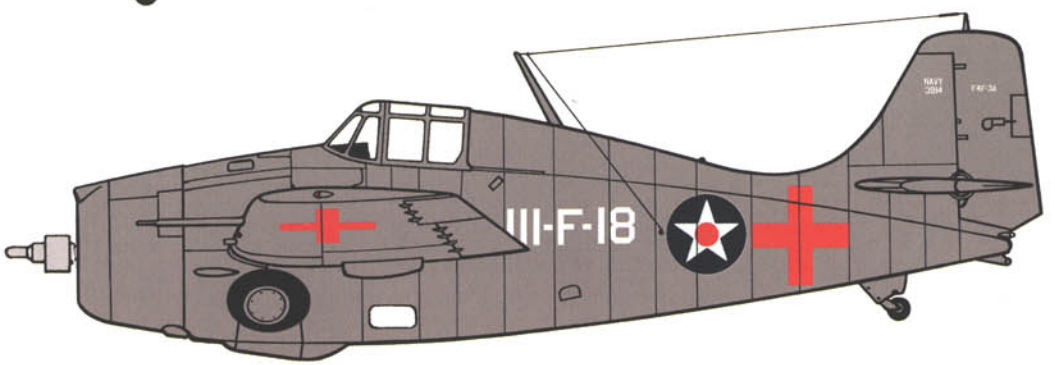


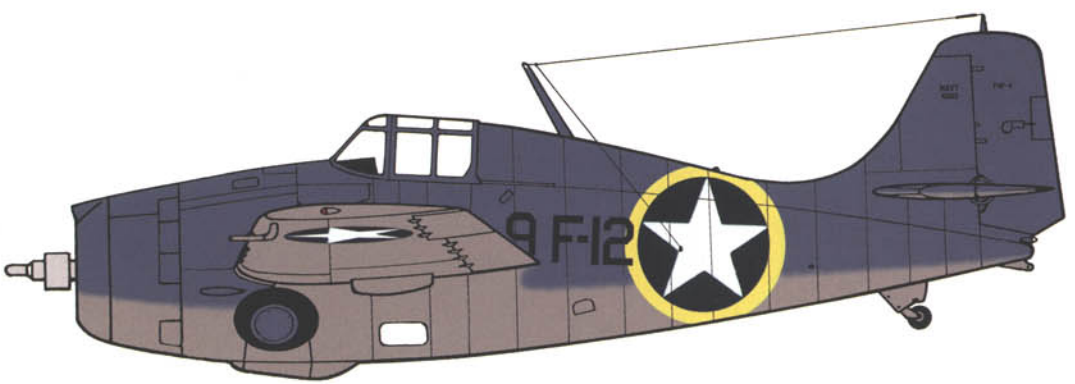
Wildcat Colors and Markings

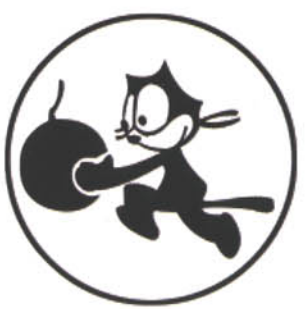


This F4F-3 Wildcat of Fighting Seventy-Two (VF-72) carries the prewar color scheme of sprayed Silver lacquer fuselage and Yellow wings. It has the Black tail of USS WASP (CV-7) and the Yellow cowl and fuselage band of the sixth section leader.

An overall Light Gray Wildcat of Marine Fighter Squadron 111 (VMF-111) during the joint Army-Navy wargames in 1941. The Red crosses indicated that this Wildcat belonged to the Red Forces.

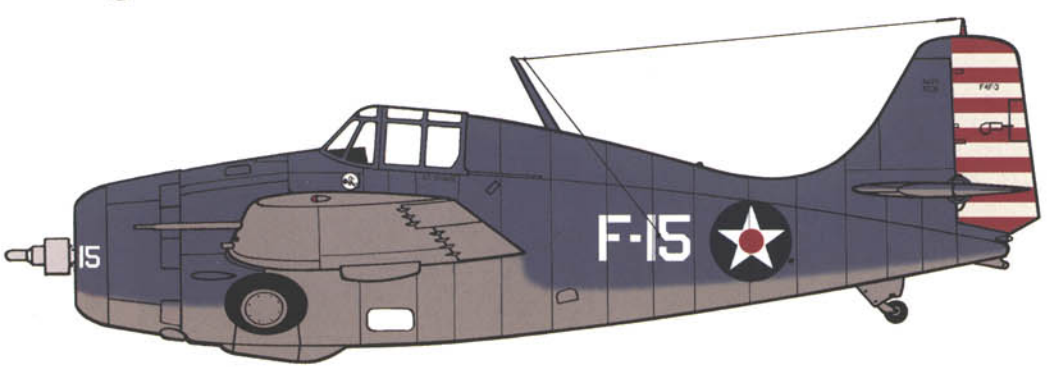




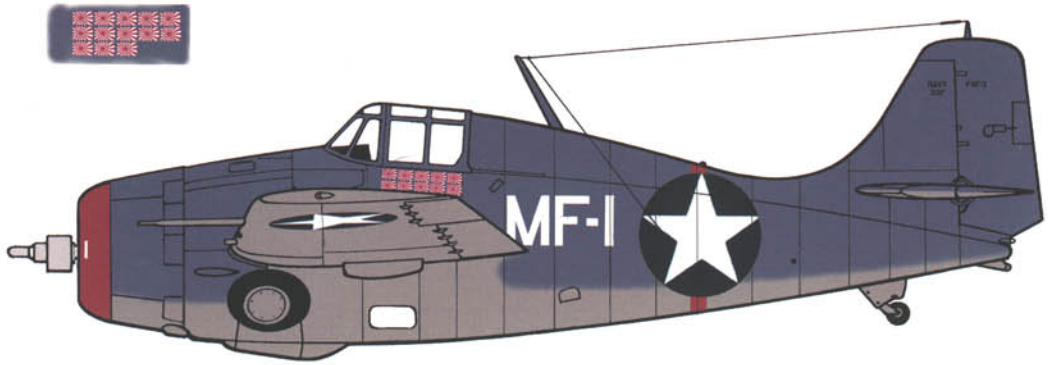


Fighting Three (VF-3)

Wildcats from USS RANGER took part in Operation TORCH, the North African landings during October/November of 1942. During this period, a Yellow surround was applied to the national insignia as a recognition aid.

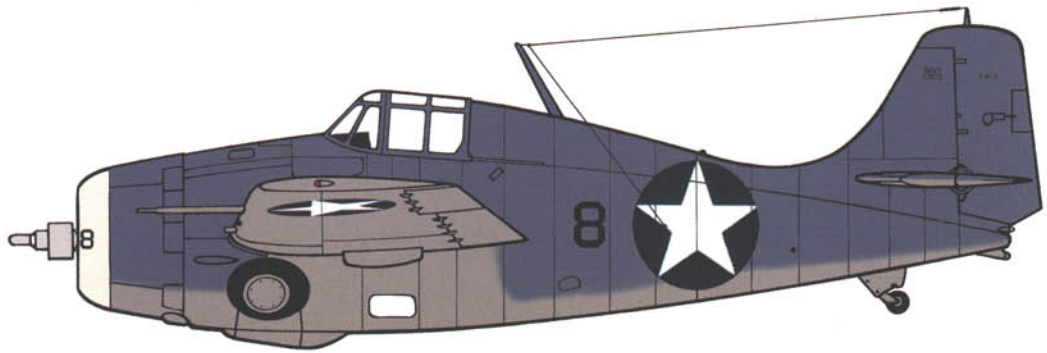


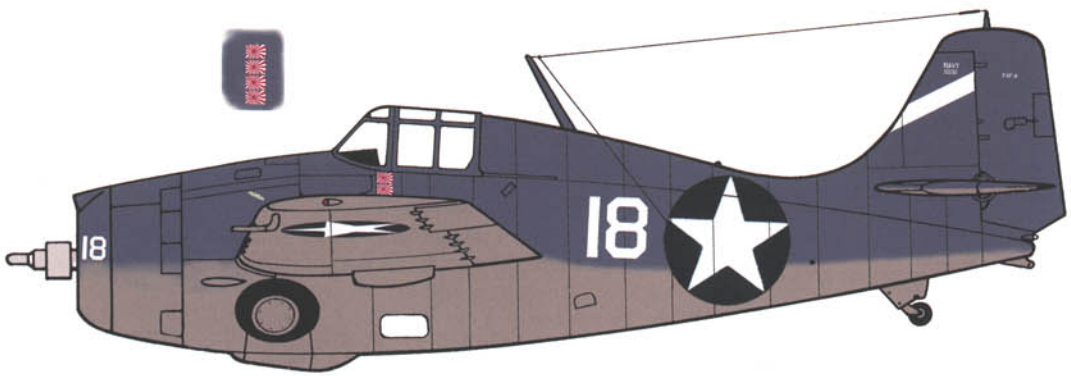
This F4F-3 Wildcat was flown by Lieutenant Edward H. (Butch) O'Hare of VF-3 aboard USS LEXINGTON. LT O'Hare was the Navy's first Second World War ace when he destroyed five Betty bombers in a single engagement.



This F4F-3 was flown by Major R E. Galer of Marine Fighter Squadron 224 (VMF-224) on Guadacanal during the Summer of 1942. Major Galer was one of the top scoring aces of the Guadacanal campaign. He was the fourth top scoring Wildcat ace with a total of thirteen kills, all in F4Fs. He was awarded the Congressional Medal of Honor for his actions.

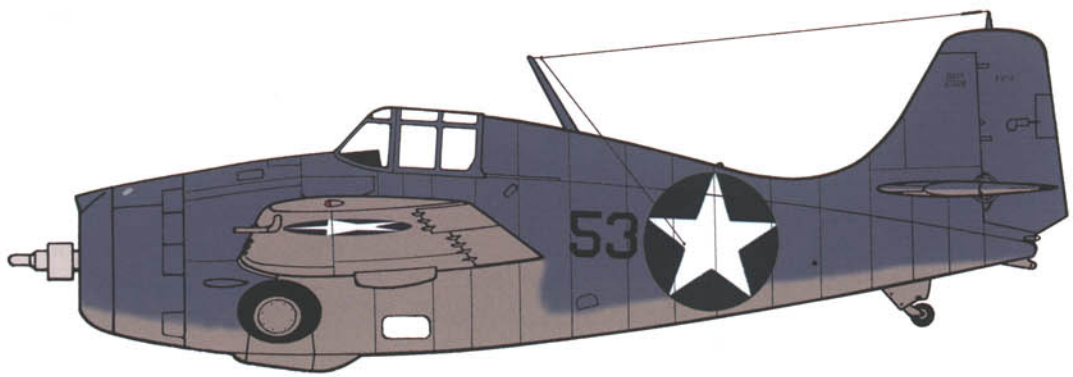
Colonel H. W. Bauer of VMF-212 was the commander of the Marine fighters on Guadalcanal during the Summer of 1942. He had ten kills to his credit when he was declared missing in action on 14 November 1942. He was awarded the Medal of Honor.





This Wildcat was flown by Aviation Pilot 1st Class Howard S. Packard of Fighting Six (VF-6) aboard USS ENTERPRISE (CV-6) during August of 1942. His Wildcat was unusual in that it carried White codes and markings.

One of the most famous Wildcat pilots was Captain Joe J. Foss of VMF-121 on Guadalcanal. Captain Foss was the first American fighter pilot to exceed Eddie Rickenbacker's First World War record of twenty-six kills.



A early F4F-4 on the Grumman ramp prior to delivery in December of 1941. The aircraft carries the Light Gray color scheme and has a Mk XLI bomb rack on the wing. (Grumman)

The FM-1 was a Eastern Aircraft built variant of the F4F-4 Wildcat. It differed from the the F4F-4 in that it was armed with four .50 caliber machine guns instead of the six guns installed in the F4F-4 (Grumman)

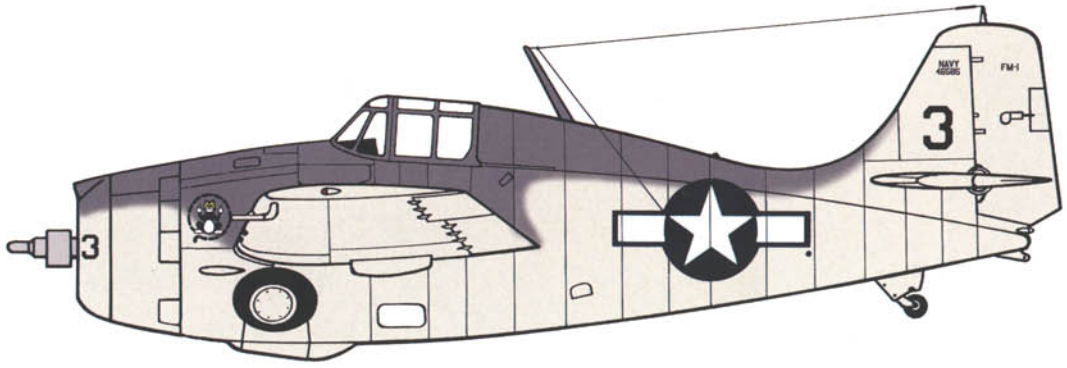
Ground crews push this F4F-4 into its revetment to prepare it for another sortie. The paint on the fabric covered control surfaces faded much faster than on the metal wings and fuselage. The cowl flaps are fully open (San Diego Aerospace Museum)

Deck crews install the wing brace that locked the wing to the stabilizer on this FM-1 Wildcat. These braces held the wing steady in the wind over the deck.

A F4F-4 of VMF-213 taxies in on the crushed coral runway of Henderson Field on Guadalcanal during 1943. (Colonel James N. Cupp)

This was the third French ordered G-36A Wildcat. The aircraft on this contract were taken over by the British and renamed Martlet . G-36s did not have cowl flaps and had a armament of four .50 caliber machine guns. (Grumman)

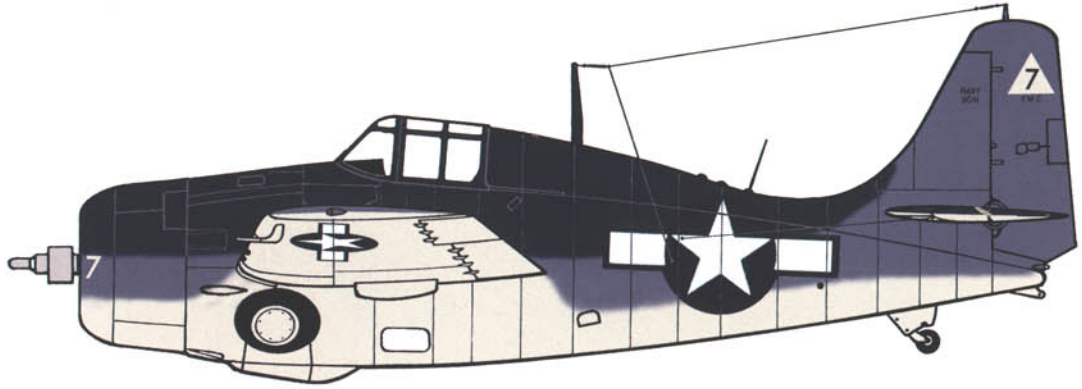
A overall Gloss Sea Blue FM-2 Wildcat. The FM-2 was the last of the Wildcat line.

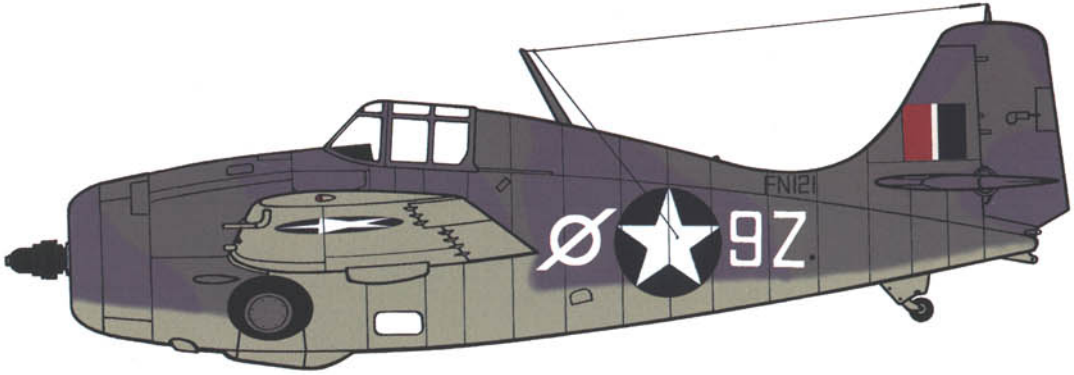


This Eastern Aircraft FM-1 Wildcat was assigned to VC-12 aboard USS CORE (CVE-13).

VC-12

An Eastern Aircraft FM-2 Wildcat of VC-4 aboard USS WHITE PLAiNS during 1944. The aircraft was flown by Lieutenant Leo M. Ferko

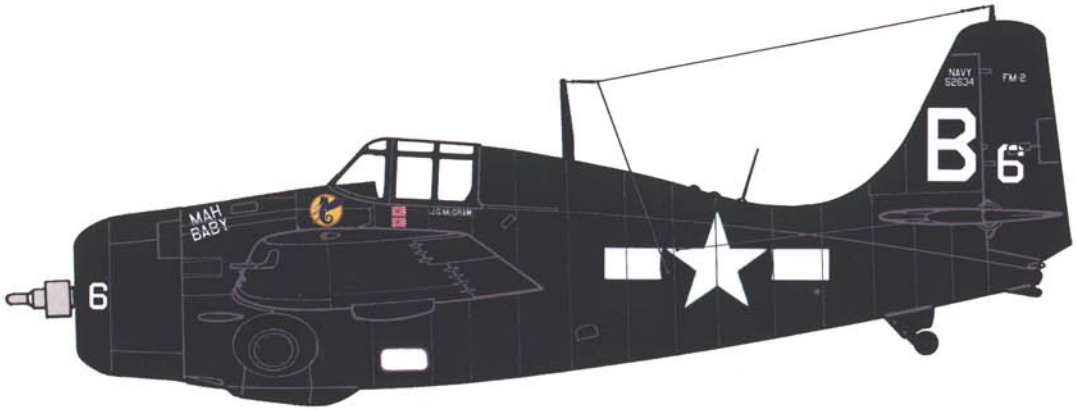


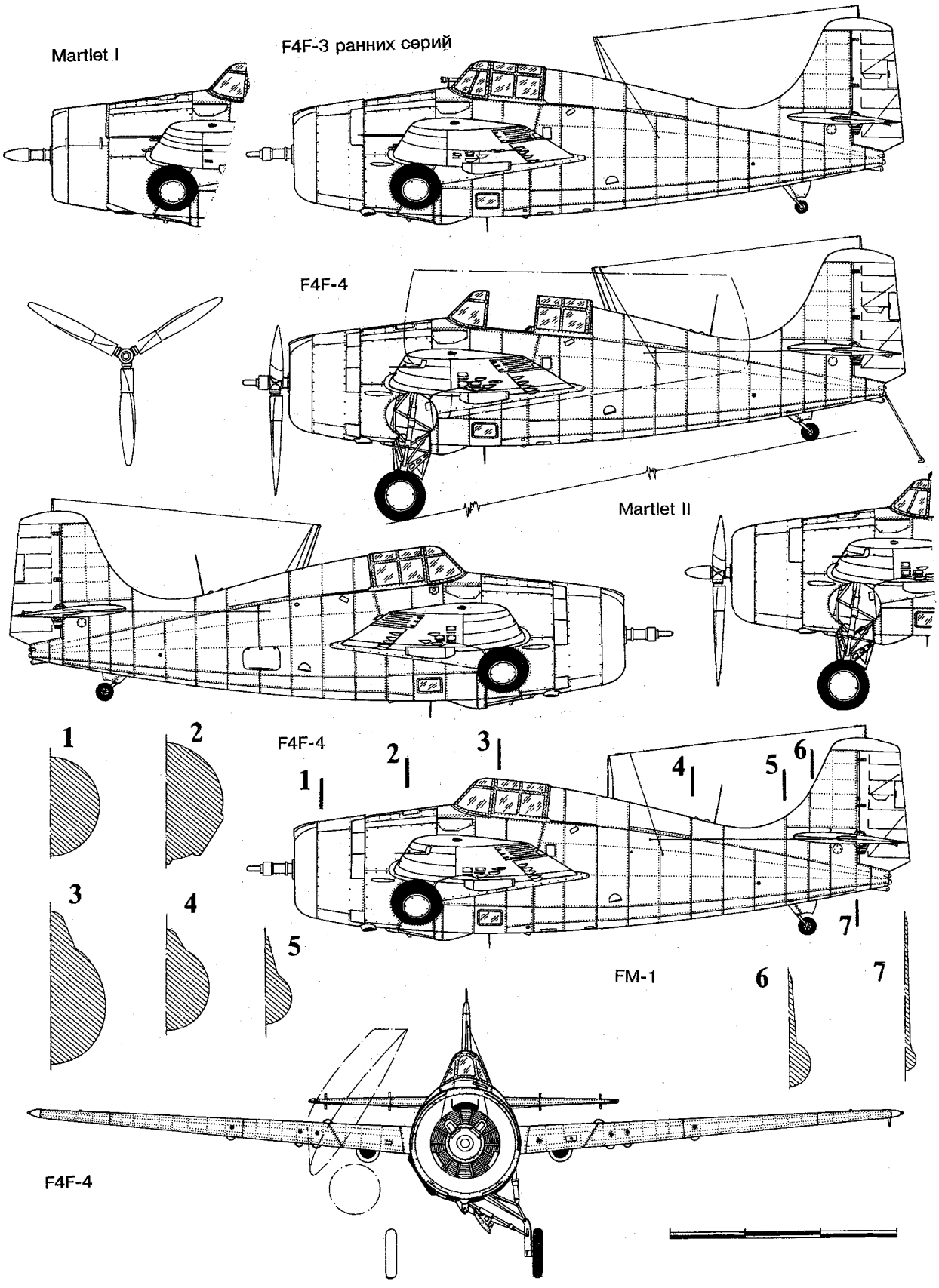


A Royal Navy Martlet Mk IV (EN121) of No 893 Squadron aboard HMS FORMIDABLE during Opetation TORCH.

VC-10

An overall Gloss Sea Blue FM-2 Wildcat of VC-10 aboard USS GAMBIER BAY during October of 1944. The aircraft was flown by Lieutenant Bruce A. McGraw.




Martlet I
F4F-3 ранних серий
F4F-4
Martlet II
F4F-4
1
2
3
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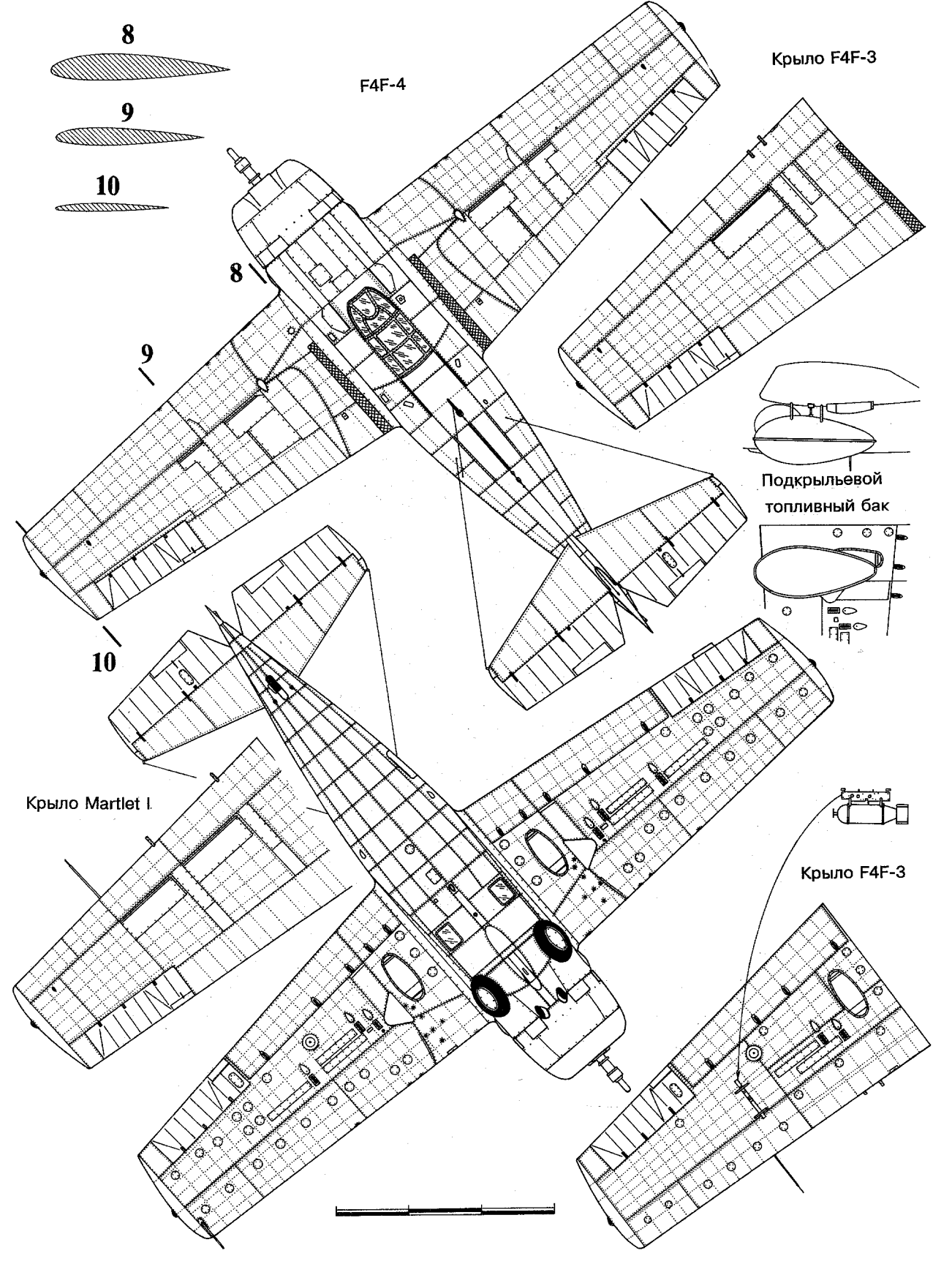
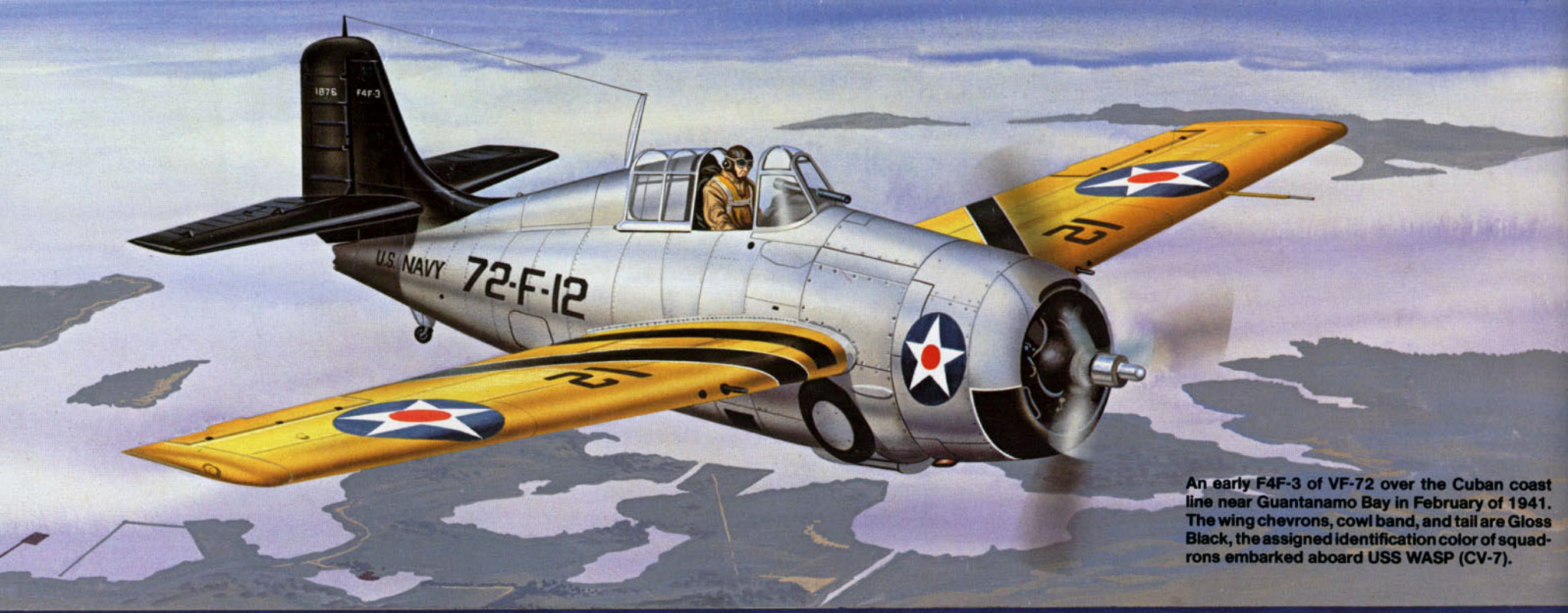
FM-1
F4F-4


8
9
10
F4F-4
Крыло F4F-3
8
9
10
Подкрыльевой
топливный бак
Крыло Martlet I
Крыло F4F-3



An early F4F-3 of VF-72 over the Cuban coast line near Guantanamo Bay in February of 1941. The wing chevrons, cowl band, and tail are Gloss Black, the assigned identification color of squadrons embarked aboard USS WASP (CV-7).

An overall Glossy Sea Blue Eastern Aircraft FM-2 of VC-93 assigned to USS PETROF BAY (CVE-80) in May of 1945. The White four leaf clover on the tail and upper starboard wing tip are the squadron marking for VC-93.

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This F4F-3 Wildcat was flown by Lieutenant Edward H. (Butch) O'Hare of VF-3 aboard USS LEXINGTON. LT O'Hare was the Navy's first Second World War ace.

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